

# THE READER

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# THE READER.

SATURDAY, SEPTEMBER 16, 1865.

## METROPOLITAN SEWAGE.

WHEN Mr. Pecksniff pronounced himself a benefactor to his species, because he set in motion the most complicated piece of machinery he was acquainted with—namely, his own digestion—he spoke with the feelings of a true engineer; but had he known the far greater consequences which the chemical agencies he was unconsciously employing would one day be capable of, it would have been difficult to set bounds to his self-complacency. If man restores to the earth what he has taken from it, he will transmit the universal inheritance unimpaired to his posterity, says Baron Liebig; but not otherwise. Man, dispersed, as he is in savage life, in small troops over a large surface of country, for ages observed this simple and fundamental law. If it be true that the wild man requires for his livelihood a much larger area than his civilized brother, on the other hand he does not exhaust any of it. If he invents no art or science, at all events he does not use up the constituents of sound brain and sturdy limb without leaving a good equivalent behind him. When men began to congregate on the banks of running streams, they soon congratulated themselves on the additional power that union evolved. They looked upon the surrounding country as the brute beast, upon whose broad back they could lay whatever burdens they would; they dug into its entrails for their buildings; they stripped its mountains for their fuel; they made full use of their privileges, and cried, "He who is alive, is right to live." Well may the earth be called the patient. For thousands of years she has borne uncomplainingly the riot of her greatest parasite. But at last he has assembled his millions in one spot. Strong in numbers, he has ceased to render tribute where tribute is due. And now, whilst, like Balaam, he has set out on his journey to bless his friends and curse his enemies, his stomach filled with all imaginable good things, his head full of schemes for the benefit and the conversion of the whole world, at last his ass has stopped. Like the prophet, John Bull's first idea was one of unbounded indignation at what he considered the laziness or obstinacy of his faithful animal. "Am I not fulfilling the commandment of my Lord? Do I not increase and multiply? Am I not a missionary? and do not I convert savages?" All this may be very well; but the earth may yet have nobler creatures than man to support; and as he partly ekes out his supplies of phosphate from extinct birds and cretaceous fishes, perhaps the angel into which we are to develop may have a reversionary interest in the proper deposition of our metropolitan sewage. There may be higher things than the prosperity of the Anglo-Saxon, and higher dramas than even the perfectibility of man, to be enacted on this earth; and yet they may depend upon such slight foundations as the management of refuse during the human era.

If we were not too well acquainted with the tricks of the Stock Exchange, the goodly premium to which the shares of the Metropolitan Sewage Company have risen would banish any fears we have entertained of the impossibility of putting a stop to the waste of the raw materials of beef and corn. But no test can well be

more fallacious. The wealth we want is not a large dividend, but fresh breadths of wheat-sown land; and if it be true that the plains of Poland and of North America are becoming exhausted because their products are not consumed on the spot, the loading some thousands of Essex acres with deeply-piled manure will scarcely increase the area from which London is to draw its resources. Indeed, this is the most alarming view which has yet been taken of the subject. But there must be other causes besides the export of wheat to England which will account for the diminishing fertility, if it be such, of the plains of Illinois and Minnesota. The land is exhausted on principle, as being the most lucrative way of dealing with it, and then abandoned for the same reason. If, indeed, the theories of Liebig are so unyielding, and the soil must receive sooner or later, and that from man, the exact equivalent of what it produces, we have reached the limit of the numbers which the laws of nature will permit to be congregated together; and we can no more add another million to the population of London than a cubit to our stature. That there is a limit, admits of no doubt; and nothing will be more interesting than to reach that limit, and to discover what is the nature of the invisible barrier which is to separate the fields of grass from the fields of houses; but we do not believe it will be any practical difficulty in procuring food, or any well-calculated co-operation on the part of transatlantic agriculturists.

At all events, our present difficulties lie under our feet, if not under our noses; and the latter organ does not permit us to ignore them. It was not until we had allowed the Thames to become one vast cloaca, and been compelled to deluge it with chloride of lime, that we became alive to the fact that we were at one and the same time squandering our money and creating disease. All we have hitherto done has been to succeed in placing our tail at a greater distance from our head. This is the sum and substance of the labours of Parliamentary Commissions and civil engineers. One large flood is poured into the brackish water at Barking Reach, on the northern side of the river, and another at Crossness Point, on the south. London is free to unfold its coils, and stretch its head farther westward and northward, without any apprehension arising from the increase of numbers. It is, perhaps, fortunate that the seat of fashion and the seat of power cannot now be moved. The former pretends to be independent of the latter; but this is only a pretence; and we may rest assured that so long as the Houses of Parliament continue to assemble on the banks of the Thames, so long the riddle of metropolitan sewage will be agitated on the senatorial platform, where so many speeches have been manufactured, until it is definitively resolved.

The question is certainly not settled yet. The Thames, in this September weather, if not positively unbearable, is still very offensive. When the noble quay, so rapidly progressing, is completed, the senses of millions, instead of, as now, thousands, will, if some great improvement is not effected before, become alive to the fact that the national impoverishment is still in full career. It may be too much of a refinement to believe that the price of meat

has been in any way affected by the waste of London, or that the desiccation of its sewage, and its conveyance in cakes, like the guano of fossilized birds, to foreign markets, will reduce the cost of the quarter loaf. Those who hold up, as it were, in warning, the fate of Midas to the nation, forget that the Lydian sovereign gave nothing in exchange for his gold but the virtue of a touch. We may get too much, but we certainly work hard enough for it. It is rather as a matter of principle, or of business, that our Government has been compelled to enter the sewers, and borrow a lesson from Belgium and from China. It is not the fear of poverty, but the desire to show that all sources of tribute smell sweet to us, that we are trying to invite salmon up to London Bridge, and to prove that, in our bargains with Nature and Necessity, we know how to succeed.

Fourier, amongst his marvellous speculations, conceived the idea of utilizing that propensity for dabbling in dirt which distinguishes little boys. This predilection, he thought, had never sufficiently been appreciated. The lovers of nastiness were to be anxiously selected, and allowed full scope for the indulgence of their passion. "The little hordes" were to perform what are generally held to be the most repulsive duties. Like the fire-brigades of New York, they are to have, under the rule of Harmony, a grotesque and striking uniform. This is for the purpose of attracting recruits. They are to commence their duties with a sort of religious frenzy, and receive daily in return a civic crown. Their exertions are held so much beyond all price, that the remuneration is to be smaller than for any other labour. On the other hand, they are to be saluted with the most illustrious titles, and to be accorded the first seats in the synagogue. "The little hordes" must alter very much from their present character, if the last reward becomes an object of ambition. Still, the idea of Fourier is not altogether to be despised. If we entrust the production of manure from sewage entirely to those who are as delicate in point of sense as ourselves, they will only succeed because failure is impossible. Nor is it wise to place all our hopes on one chance. The removal of sewage-matter from cesspools, and its desiccation into inoffensive cakes, have two advantages the present company do not possess—first, the absence of waste; and, secondly, the power of distributing the fertilizing substances wherever they are wanted. These are considerations which should not be altogether lost sight of. We are far from having seen the end of this subject. It is not to be settled by the simple expedient of a gigantic sewer with a sieve at the end. But if it fails? Can the Ragged Schools furnish us with a battalion of "little hordes"? Can we utilize at one and the same time the dregs of our population and the soil of our drains? What if one is really adapted to the other? They might fit like a Chinese puzzle! Despairing mothers might devote their children to the service of Cloacina, instead of offering them up to that goddess as a daily sacrifice. An underground hospital, like an underground railway, may help to carry off the extra population; and when they are sufficiently numerous, we shall have a representative from the Sewers' Borough, whose familiarity with the subject will not be confined to an annual trip through a few



miles of the many hundreds which form the network of sub-terrestrial London.

## CURRENT LITERATURE.

## THE ISTHMUS OF PANAMA.

*The Isthmus of Panama.* By Charles Toll Bidwell, F.R.G.S., British Vice-Consul at Panama. (Chapman & Hall.)

THE nature of this book may be gathered from a passage in the introductory chapter, where the author says, "I do at least trust that my publisher will give me an index," combined with the fact that his publisher, like a man of business, has not thought it worth his while to do so. Indeed, the only index the book wants is a list of the passages which have been copied bodily from such well-known works as "The Lives of the Buccaneers," Prescott, and Washington Irving, with the number of extracts taken from the *Saturday Review*, the *Daily News*, and the Panama newspapers. Mr. Bidwell, candidly as he no doubt thinks, says, "I do not claim to be original." But the clumsy pick-pocket might as well make a merit of saying "I do not pretend to be honest," and ask indulgence for inserting into his own pockets much that he had ostentatiously taken from another's. Mr. Bidwell confesses, too, "that he understands nothing about book-making," and we are bound, therefore, to believe that he has not made a study of it. So we can only wonder how much he is to the manner born. But here, again, he throws himself upon his unfortunate publisher. "I know nothing about dividing what I shall have to say into suitable chapters, and placing it under proper headings; all this labour may be my publisher's, not mine." Mr. Bidwell had only to ask one thing more from the kindness of this much enduring gentleman—namely, when he had arranged the chapters, to find some suitable matter to put into them. We verily believe, such is the composure of Mr. Bidwell, that he would, even in that case, have still imagined his publisher to be very much indebted to him for providing him with a title-page and a name to put upon it. But his publisher does not seem to have paid much attention to the gentle insinuations of Mr. Bidwell, and, as we conclude, after reading some, at all events, of his introductory chapter in MS., evidently sent it back, with an intimation that it was his business to publish a book, and that of Mr. Bidwell to write one.

Our author, then, presuming as he tells us himself, on our ignorance, reminds us, to use his delicate expression—for he evidently thinks not merely that we have forgotten the fact, but also that, probably, we never knew it—how Christopher Columbus or Colon discovered America. But he is not content to accept history alone from others. Even his morality is second-hand. "How charming is the moral which Irving draws from the life of Columbus!" &c. These are positively nearly the only words in the chapter which are not marked with inverted commas.

Next we are reminded that "we remember"—"we," again, evidently meaning Mr. Bidwell alone, and used much in the same way as the fine classical scholar says to the little Lord Linger, "Let us construe Virgil"—how Vasco Nunez de Balboa settled at Darien. The story is then continued, under the saving clauses of inverted commas, until at last Mr. Bidwell, still faithful to his doctrine that knowledge is nothing but reminiscence, says, "I have endeavoured to bring back to the recollection of the reader something of the history of the Panama of the past," and then puts in his inevitable plea of guilty: "I have done so in the very language of those who have studied and written on the subject."

By the time Mr. Bidwell had got thus far in his work, he must have been conscious that he had begun to understand how books are made. And, accordingly, in the account of his Atlantic voyage he takes a more daring flight. He does, indeed, quote the regulations

of the directors of the Cunard steamers, who inform him "that the comfort of a numerous body of passengers must very much depend upon the manner in which they themselves assist in promoting it," and also Mr. Trollope, who, it seems, said that "you might take a more uncomfortable means of conveyance" than those of the Royal Mail Company; but for the most part the Atlantic voyage is his own. He makes the discovery that it is better to be sea-sick than to have nothing to do; and as, with him, writing on board ship is out of the question, it is clear poor Mr. Bidwell had no other resource left. But he arrived at Colon at last, and finally crossed the Isthmus of Panama itself by the railway. And now we come to a singular feature in our author. It seems he had once crossed the Isthmus about ten years before, in 1853, and written then, "as I write now, without exaggeration." This account is really interesting, and well done; but then Mr. Bidwell did not trust to his publisher, and had no thought of printing a book. If we might judge from internal evidence, we should conclude that Mr. Bidwell has been stirred up to that feat of intellectual activity by perusing Captain Pim's "Gate of the Pacific." We are no judges of the controversy between the two, which seems to have begun long ago in the columns of the *Panama Star* and *Herald*, but as Captain Pim has been made to help Mr. Bidwell very considerably in swelling out the dimensions of his volume, it does seem to us rather hard measure to say of that gentleman, "from such accounts as this it is only one step to those given us in tales of fiction."

In the centre of the book, hidden, like the heart of a cabbage, in leaves which are only fit to wrap up rubbish in, there is some useful information about modern Panama; its government, population, climate, and the cost of living. But, even here, our author's taste for quotation makes him ridiculous. He must know Panama and its society well. Then why quote "Von Tempsky" and "Prescott's Essays" on the ladies of Mexico, to give us an idea of the Panamenos? On climate Mr. Bidwell can be read with satisfaction. He can't go through the farce of supposing that his reader can recollect it; but we should like to have heard a little more about the "gallinazo," the useful carrion bird which does its best to make Panama endurable. Nearly all the male inhabitants, it seems, speak English, owing to the frequent communication with America, and latterly in consequence of the railway. Bull fights and cockfights are the principal amusements of the natives. "But unfortunately, the stupid politics of their country appear to offer the greatest attraction to the whole community;" and "even the most respectable young men spend much of their time in the dirty little coffee-shops and billiard-rooms of the town." The cafés of Paris, where Mr. Bidwell seems to be now, are doubtless more brilliant than those of Panama, but young men, we suspect, are much the same everywhere. And what about Panama hats? They are made chiefly in the republics of Ecuador and New Peru, and a few in New Granada, and merely shipped from Panama. A Panama hat is the most expensive covering we know of. A good one costs from 4*l.* to 8*l.*, and 4*s.* every time it is cleaned. It takes a native about three months to braid one of the finest quality. The essence of this book might assist towards supplying a want the writer bemoans—"Mr. Murray has not yet thought Panama worthy of a handbook." We heartily wish he would, if only as a certain method of preventing the composition of such another "work" as Mr. Bidwell's "Isthmus of Panama."

## ÆSCHYLUS.

*The Agamemnon, Choephori, and Eumenides of Æschylus.* Translated into English Verse by A. Swanwick, Translator of Faust, Tasso, Iphigenia, &c. (Bell & Daldy.)

CAN it possibly be due to the timidity of the trade that, pretending to know nothing of the literature that is its ware,

is said to claim infallibility in the construction of title-pages, that an initial in place of a name at length on the frontispiece of this noteworthy book fails to give readers intimation that they owe it to a lady? That any should be necessary is but an accident. The previous translations of Miss Anna Swanwick had the disadvantage of appearing in a series that was a very drag-net of things base and excellent, and it is owing to this,—in some degree also to association with the less spirited and we should conjecture earlier translation of the "Tasso,"—that her rendering of "Faust" has escaped the wide attention and appreciation which it may rightly challenge, and will yet receive. After the present work, we doubt not that publishers will take heart, and be reconciled to concede to the authoress hereafter something better than the timid twilight of an inexplicit title.

As it may appear [says the Preface] presumptuous to offer to the public a new translation of the Æschylean trilogy, the grandest dramatic work of classical antiquity, I may, perhaps, be allowed to state that I have not entered on the task altogether uninvited. On the publication of my translation of "Faust" and the other master works of Goethe, I was strongly urged by the late Baron Bunsen to undertake the translation of the Greek dramas. I felt honoured by the proposal; and though I was not immediately impelled to act upon the suggestion, his words have dwelt in my memory, and have encouraged me to complete an arduous and very difficult undertaking.

No presumption in such an enterprise can be imputed on the ground of the sufficiency of any existing translation. For any other attempt that has yet been made, Æschylus remains still more absolutely untranslated into English than Homer himself; and we open the book with interest and curiosity to see in what class of poetical version the present attempt may range. One class of very high merit comprises such works as the "Iliad of Pope," the embodiments of an inspiration awakened but not communicated by the ancient and—to transpose the clauses of Bentley's comment—although not Homer, nevertheless a very fine poem. The pedestrian and the sufficient translations pass along to whatever circle of limbo are consignable the works of Art which number by the million and, chargeable with no crimes and scarcely with a peccadillo, are condemned out of hand for lack of a single rag of virtue of any kind to palliate their platitudes; better than these are the translations that, like that of "Agamemnon the King," by Blew, run far on the way to extravagance, or even the works of such men as Potter or Abraham Moore, and many another, where every third line repeats the cadences and even the phrases of Paradise Lost, or Gray's Bard, of Marmion, or Macpherson, or Macaulay.

But a translation, to be truly such, should smack more of the original than of any other poet whatever, whether of the translator, should he or she, as in the case of Mrs. Browning, translatress of Prometheus, bound, happen to be an original poet, or of any other, however cognate in style, in theme, or genius.

"The Faust" of Miss Swanwick, we profess, conveys to us, in an extraordinary degree, the same feeling as reading the original. We have now to inquire how far this is the case with her "Oresteia."

The difficulty is, perhaps, not so much greater as the greater remoteness of the original poet in time would intimate. The genius of the English nation, as of the English language, has a kinship with classic tendencies, that goes far to counterveil such differences, and the Englishman up to the highest standard of his culture is, we suspect, very much more like Demus passing from Pnyx to Dionysiac theatre, than to a German student labouring to find the true focal distance of the absolute from an incomprehensible stand-point.

The German translation of Æschylus, by J. A. Hartung, aspires to render the choral odes in the identical metre of the original with a result that quite vindicates the fortune



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anticipated by Miss Swanwick for such an attempt in English. "The difficulty of rigidly applying these principles—of faithfully reflecting the original both in spirit and form—to the translation of the choral odes, will be apparent when we remember that the medium through which the thought of the ancient poet has to be embodied differs so essentially from that of the original as to render the principle of imitation, with reference to their musical intonation, inapplicable." This difficulty is most unquestionable, though we are not satisfied with the explanation of it cited from Professor Newman: "An accented metre," he says, "in a language loaded with consonants, cannot have the same sort of sounding beauty as a quantitative metre in a highly vocalized language." Quantitative metre relies equally in either language upon relief from monotony, by variation in the places of pause, given by divisions of the sense, and in the position of the most significant words—but in English also by the place of stress and emphasis, which always falls upon the strong part of the metre and inevitably lengthens the syllable it touches. In the Greek, on the other hand, there was the play of accent which flits over the frequent polysyllabic words, and lights up without lengthening a weak syllable of a foot as frequently as it is coincident with a strong. The ornament of accent in this sense is beyond the reach of English poetry, as it is foreign to the tongue. We judge that the translator was led by a true instinct in deciding that in some degree to supply its place it was impossible to overlook "the felicitous adjunct of rhyme, which, when judiciously employed, may be regarded as a musical accompaniment pervading the choral harmonies, enhancing their beauties, and, at the same time, serving to mark the time." That "the exigencies of rhyme forbid faithfulness," is an objection that is thought to be overstated, and as metrical translation must always be a matter of compromise, it was rightly judged better in any case "to aim at the true lyrical ideal, however difficult of realization."

In justification of our opinion of the general success of the experiment, we would willingly extract the great opening chorus of the Agamemnon, or the lyric altercation with Clytemnestra, after her bloody deed, when she retorts with evil and ironical insolence. The length, however, of these sections forbids; and they could, moreover, only be torn bleeding from their context. We substitute the solemn song of the Furies, as they await the assembling of the Court of the Areopagus, which is to decide their suit of blood against the avenger of Agamemnon, the matricidal vindicator of his sire. In this chant, the patriotic poet, verging to the close of his life, embodied the political protest of the "fighters at Marathon" against the reduction already consummated of the conservative influence of the great institution. The State, which is only living while it grows, had no true cause to regret a change that inaugurated the brilliant and grand career of Pericles, and the principles of the protest were in fact only good so far as regulative and not obstructive.

## Chorus of Furies.

Ruin will usher in new laws  
Should judgment crown the wrongful cause  
And on this mother-slayer smile;  
This deed will mortals reconcile  
To licence, and from age to age  
Parents shall bleed beneath their children's rage.

No more this mortal-watching train  
Shall dog the caitiff as of yore;  
To murder I will give the rein;  
Who tells his neighbour's sorrow o'er,  
Shall hear in turn Grief's anguished moan;  
Who comforts other's woe himself must groan.

Let none 'neath Sorrows yoke  
Writhing our aid invoke,  
Pleading, with anguished moan,  
"O Justice, O Erinyes' throne!"  
Some father thus may cry,  
Some mother smit with agony,  
Vainly, since Justice' altar lieth prone.

Throned in the heart let Awe,  
Guardian of sacred law,  
There hold her steadfast reign!  
Well earned is wisdom at the cost of pain,—  
But who, in blithesome cheer  
That lives absolved from Fear,  
Or man or state, will Justice long revere?

Neither life by law unblest  
Nor by tyrant yoke oppressed  
Sanction thou;—  
All extremes the gods detest;  
They with strength the mean endow.  
Truth in pithy phrase compressed  
Hearken;—pride and haughty wreak  
From Irreverence begin;—  
But if soundness reign within,  
There, dear to all, dwells Bliss, which mortals  
seek.

This, the sum of wisdom, hear;—  
Justice' altar aye revere,  
Nor ever dare,  
Lusting after worldly gear,  
With atheist foot to spurn;—beware,  
Lurketh Retribution near,  
Direful issue doth impend;  
Honour, then, with holy fear  
Thy parents; household rights revere,  
Nor quest-observing ordinance offend.

But who unforced, with spirit free,  
Dares to be just is ne'er unblest;  
Whelm'd utterly he cannot be:  
But for the wretch with lawless breast,  
Bold seizer of promiscuous prey,—  
I warn you, he, perforce, his sail  
Shall strike amid the conquering gale  
When shrouds and yards dismasted own its sway.

He cries, but neath the whirlpools roar  
None heeds him; for the gods deride,  
Eyeing the boaster, proud no more,  
Struggling amidst the surging tide;  
Shorn of his strength, he yields to Fate;  
The cape he weathers not, but thrown  
On Justice' reef, with precious freight,  
He perisheth for aye, unwept, unknown.

This appears to us to be remarkably close to the original, without skipping or amplification; to be terse and forcible; and moreover, while it in no way affects metrical obsequiousness, to represent excellently the staid and solemn rhythmical beat that harmonizes the Greek. Our second example shall be taken from—

Where the cothurn treads majestic  
Down the deep iambic lines,

in the speech of Cassandra, before she rushes, prescient of her fate, towards the murder-breathing portals of the palace of Atreus:—

Ah, this prophetic fire! It seizes me;  
Woe, woe! Lycæan god, Apollo! woe!  
The biped lioness that with the wolf,  
In absence of the noble lion, couched,  
Will slaughter me her victim, and as one  
Poison who mixeth, she my doom will add  
To crown her vengeance; whetting 'gainst her lord  
The murd'rous knife, she boasteth to exact  
His death, as payment for escorting me.  
Why longer wear this scorn-provoking gear,  
Sceptre, and wreath prophetic round my neck?  
Thee I will shatter ere myself am doomed  
Hence to destruction, I will follow soon;  
Others instead of me enrich with woes.  
Behold, Apollo's self doth strip me bare  
Of the prophetic robe; coldly he gazed  
The while, in consecrated garb array'd  
To friends and foes a laughter I became:  
Vagrant cylept, poor hunger-stricken wretch,  
Like strolling mountebank; I bare it all;  
And now the seer (his vengeance wreaked on me  
The seeress) calls me to this deadly fate,  
My father at the altar fell, but me  
The slaughter-block awaits, and reeking knife.  
Yet not unhonoured of the gods we fall;  
For other champion of our cause shall come,  
Seed matricidal, venger of his sire.  
The exile, from his native land estranged,  
Returns, this vengeance for his friends to crown.  
For lo, the gods a mighty oath have sworn,  
That his slain father's corpse shall lead him home.  
But why, an alien here, pour I my wail?  
When that I first have seen my Ilion fare  
As fared it hath, and they who won the town  
In sorry plight, through judgment of the gods.  
I'll go! I'll do! I will endure to die,  
These gates as gates of Hades, I adjure,  
One prayer I offer, mortal be the stroke;  
Free from convulsive throes, in easy death,  
While ebbs my life-blood, may I close mine eyes.  
(P. 53.)

This is a translation, "correct with spirit," that may be read with pleasure and satisfaction immediately after the original. In one line we would rather have read—

"Returns, to crest this vengeance for his friends," instead of "to crown," or other still better word might render more distinctly the metaphor of Æschylus, which implies to complete as with a cornice, or coping stone. Another line only supplies an illustration of that insurmountable difficulty of a translator, when not only no single word in the translator's language will convey both meaning and force of a particular word in the original, but when, even at the sacrifice of force, the meaning cannot be transferred within any modest limits of paraphrase.

"That his dead father's corpse shall lead him home," may be allowed to stand till the Greek word for *overtake* ("that the overturn of his slain father shall bring him home,") can be matched with one conveying the same associations of the palestra to an English ear, the sudden and sounding catastrophe as of a wrestler fatally thrown.

It is one great qualification of the present translator that she does not quail before the audacity of her author, abates nothing of his demand on the intelligence or poetical sensibility and self-collectedness of the audience; does not reduce to tameness in English the metaphor or the allusion that was not held to be discordant or startling by the Greek, and will often rather leave an obscurity, which sometimes also has a poetical value in its brevity, than give slow readers that kind of help which amounts to versifying scholiast and commentator.

The narratives of the Herald in the Agamemnon—not the "grave and weighty nuntius" of Milton, but the messenger scarcely controlling his elation at success and safety, are excellently given. We remark that they occupy exactly the same number of lines both in Greek and English, no insignificant point, when it appears so manifestly that the commensurableness was undesigned and unnoticed.

## Herald.

To sully with ill news the day of joy  
Suits not; the honour of the gods forbids.  
When messenger, sad-visaged, tidings dire  
Of routed armies to the city bears,  
A common wound inflicting on the State,  
While many men from many homes are banned,  
Smit by the two-fold scourge which Ares loves,  
Twin-speared Calamity, a gory pair;  
Whoso is laden with such sorrows, he  
The pæan of the Furies well may raise.  
But I, glad herald to a prosperous state  
Of victory achieved, foul news with fair  
How can I mingle, telling of the storm  
Charged with heaven's wrath against the Achaian  
fleet?

For fire and ocean, direst foes of yore,  
Together leagued, plighted alliance dread,  
Whelming Achaia's luckless armament.  
Then rose by night dire perils of the deep;  
Beneath the Thracian blasts ship against ship  
Dashed wildly; mid the storm of pelting rain  
The fleet, sore butted, vanished from my eyes,  
Whirled by its shepherd dire, the fierce typhoon.  
And when at length uprose the sun's fair light,  
Behold the Ægean sea bestudded o'er  
With wrecks of Grecian men and shattered barks.  
Us and our vessel, with unshattered hull,  
Some god I ween (not mortal was the power)  
Ruling the helm, hath saved by stealth or prayer.  
But Saviour Fortune lighted on our ship,  
Which neither stranded on the rockbound coast,  
Nor on her cables resting felt the surge.  
Then safe at last from watery Hades snatched,  
In genial daylight, still mistrusting chance,  
With anxious thought we brooded o'er new grief;  
Our host sore wearied and in evil plight;  
And, doubtless now, if any still survive,  
They speak of us as dead! Why should they not?  
As we imagine a like fate for them.  
But may the best befall! for Menelas,  
Foremost and chief, expect him to arrive;  
If any sunbeam knows of him as safe,  
Rejoicing in the light (through the device  
Of Zeus not willing, yet the race to whelm),  
Good hope there is that he may yet return.  
Hearing this tale, know, thou the truth hast heard.

We have said enough to indicate, and, it will probably be thought, to justify, our ap-



preciation of this valuable addition to our literature. To other praise we may add that of discriminating taste in the versions adopted in the disputed passages and corrupted texts that strew the path of the reader of the original with stumbling-blocks and turn notes and comments into a quicksand, especially in the case of the Chæphori. In such cases the ultimate and best appeal is from scholarship to simple taste; just as other controversies that are darkened by the diggers after Hebrew roots have found ready solution by mere candour and courage, and obvious application of the four first rules of arithmetic.

In an introduction, Miss Swanwick ventures upon a comparison of the theological element in Homer and in Æschylus, with reference to the general development of religion in history. She makes some wide and daring flights. There will be few readers who will not dissent from many of her conclusions, but probably as few who will not have to thank her for either corrected or extended views of the bearing of the subject, even while they dissent. On the more exact and particular moral import of the trilogy translated she does not enter; had this been included, we suspect that she would have found that there is not so much difference between Homer and Æschylus, not to say between Æschylus and later systems, as she appears to suppose. The relations in literature between æsthetic, intellectual, and emotional religion, so to speak, stands over for a future essayist, and with it the comparative ethical principles applied by Æschylus, Sophocles, and Euripides in their varied treatment of this identical subject of the deed and judgment of Orestes. The incumbent subordination of sacred natural pieties to the duty of not leaving unpunished the violation of others of still higher sanctity, domestic, social, political, is common to all three tragedians, but there is the greatest difference in the processes by which it is arrived at, as well as in decisiveness and transparency of enunciation. If we rightly estimate the amount of intellectual labour that the translation so far represents, we shall have no right to complain if the writer indulges for an interval in diversified studies; we cannot, however, believe, that she will have to wait long for that encouragement of her efforts, on which, in the Preface, she makes her hope dependent, "to complete her version of Æschylus by translating the remaining dramas."

L.

#### THE NIZAM.

*Our Faithful Ally, the Nizam.* Being an Historical Sketch of Events, Showing the Nizam's Alliance to the British Government in India, and his Services during the Mutinies. By Captain Hastings Fraser, Madras Staff Corps. (Smith, Elder, & Co.)

IN the heart of that noble plateau of the Deccan, and extending over well-nigh five degrees of latitude, are the dominions of Afzul-oo-Dowlah, whose appellation, the Nizam, with its accompanying and qualifying epithet, has furnished Captain Fraser with a title to his work. The dominions of the Nizam include some of the most fertile and, which is equivalent, best-watered tracts in India. Their southern boundary is the river Kistnah, one of those four huge streams of Southern India which flow eastward almost across its breadth, and fall into the Bay of Bengal. Northwards, it extends almost to the valley of the Tapti; and west and east it spreads till it reaches, on the one side the spurs of the Western Ghauts, and on the other the great chain of mountains that runs parallel with the Coast of Coromandel. The magnificent river Godavery, in its great course of over nine hundred miles, scarcely quits the dominions of the Nizam, and bears to the coast the produce of their coffee and cotton-fields. The growth of this noble territory out of the rich spoils of the empire of Aurungzebe affords a curious illustration of the sinuous nature of Indian policy, and its fate and fortunes have been closely connected with the extension and maintenance of English power in the East.

After the break-up of the Mogul Empire, consequent on the death of Aurungzebe, and the quarrels of his sons for the possession of Delhi, Asaf Jah, the son of a favourite officer of the Emperor, succeeded, by a course of duplicity—his capacity for which Aurungzebe must have seen when, as it is said, he predicted his future greatness—in being always on the winning side. This happy talent, it will be seen, has been since shared by his successors. The wily soldier accordingly received from Farokshir, the ruler of Delhi, the viceroyalty of the Imperial domains in the Deccan, and the title of Nizam-ool-Mook, or administrator of the empire. Once settled in his post, the Nizam speedily determined upon erecting the dominions over which he had control into a separate empire. Very quietly, but effectively, he proceeded in his task of strengthening his authority in the Deccan. The Emperor, seeing the purpose of his vizier, but powerless more effectually to combat it, contented himself with instructing the local governors to oppose to it what resistance they could. Asaf Jah, on the other hand, continuing a mockery of fidelity, despatched to the Emperor the head of the Governor of Hyderabad, who had fallen in the attempt to execute the Imperial command, but whom it suited him to represent as an enemy, not of himself, but of the Emperor.

In consequence of the menacing aspect of the Mabratas, whose wild tribes Balaji the Peishwa had succeeded in re-organizing and leading into the field, a sort of uneasy compact was entered into between the Emperor and his intractable subject, which resulted in the latter paying a visit to Delhi, whence he returned, unmolested, to his own dominions—for so they might already be called.

In the year 1747, the first intercourse was held between the Nizam and the British. The recent advance of the French, who had obtained possession of Madras, threatened the entire destruction of British influence on the eastern coast of India. At this juncture, Commodore Griffin, commander of the English naval forces at the station, applied to Asaf Jah for aid, and in answer to that application the first service we have received from the Nizam was rendered. A body of horse was despatched, with instructions to drive the French from Madras. In this attempt they failed. The following year the first Nizam died, at an advanced age. Upon his death the succession, after a series of wars, in which the English and French took part with different claimants, at length came into the hands of Nizam Ally, his youngest son. One of his first acts, after his successful usurpation, was to declare war against the English, and to organize a fierce invasion of the Carnatic. A little experience, however, convinced him that more was to be made by taking part with the English than by opposing them; and in the wars of Clive, and the great conflict against Tippoo Sultan, he was our constant and, on the whole, tolerably faithful and active ally.

At the partition of the territory and spoils of Tippoo Sultan, the Nizam did not fail to obtain proof of the real advantages to be derived from the British alliance. The whole districts of Gooty and Gooruncundah, with other territories, were made over to him, and, by a treaty, the integrity of his dominions was guaranteed him by the British Government. There is no doubt that the services rendered by the Nizam had merited the rewards he received, inasmuch as but for his co-operation the general confederacy and war of extermination which Tippoo Sultan had plotted against the English would have assumed proportions very different from any it ever attained. In 1803, the Nizam Ally Khan died at Hyderabad, after a reign of fifty-five years, and he was peaceably succeeded by his eldest surviving son, Secunder Jah, who occupied the Musnud, or Seat of State, for twenty-six years, and was in turn succeeded by Nasir-oo-Dowlah. During a considerable portion of his rule the post of Resident at Hyderabad was filled by General Fraser, the father of our author. The General seems to have conducted the affairs with much ability

during a period of extreme difficulty. The chief events of the government of Nasir-oo-Dowlah, as of that of his predecessor, consisted of domestic difficulties, the result of the endless intrigues which always surround the throne of an Eastern potentate, of whatever degree. It was not till the elevation of the present Nizam, Afzul-oo-Dowlah, who ascended the Musnud in 1857, that the real value of the alliance of the Nizam was to be tested.

At the time of his accession the great Indian Mutiny had already broken out, and was spreading like a conflagration through the entire Presidency. The temper of a large portion of the inhabitants of Hyderabad was not even doubtful.

On the 13th of June, in this memorable year, two inflammatory placards were posted on the walls of one of the mosques, in the city of Hyderabad, tending to excite sedition, and fixing a day for a general rising. The city and bazaars continued from time to time to be agitated by rumours.

A faqueer was apprehended by an Arab jemadar, and handed over to the minister, in the act of addressing the populace in seditious language, in the course of which he told them they would be joined by a regiment from Secunderabad. This corps did right good service afterwards against the mutineers in the Shorapore country. At this time a great seditious gathering took place at the Mecca mosque, in the city of Hyderabad, when a green flag—the emblematic colour of Moham-medanism—was hoisted. The crowd was dispersed by Arabs sent by the minister; and again, on some mutineers taking refuge in the city, Salar Jung at once ordered their apprehension, proving in this manner that he was determined to support the British Government to the utmost of his ability and power.

On the other hand, the Nizam himself showed, by words and deeds, that he was determined to suppress, with a high hand, any attempt at revolt. He posted his troops (i.e., those under command of the minister) at the several thoroughfares leading to the Residency.

At six o'clock in the morning of July 17, in accordance with intelligence of a conspiracy previously received, an attack was made on the Residency by a band of Rohilla and other insurgents.

The troops at the Residency, under the command of Major, now Colonel Briggs, military secretary, received them so warmly that, after fruitless attempts to force the several posts occupied by the defenders, they were compelled to retire. The two ringleaders in this attack, Jemadar Toorabaz Khan and Moulvie Alla-oo-deen, were afterwards taken prisoners, and the former, in attempting to escape, was shot dead, owing to the active and resolute measures taken by the minister. The latter, Moulvie Alla-oo-deen, was tried, and sentenced to transportation, which he is now undergoing in the Andaman Islands.

These events are in themselves sufficient to corroborate the assertion of Captain Fraser, that the faithfulness of the Nizam was by no means so much a matter of course as some were inclined to believe. The prevalent feeling on the part of the population of Hyderabad seems to have been one of "disappointment, if not of shame, that, whilst their brethren in the field had dared the chances of an open conflict with us, the city of Hyderabad was at peace." Few who have studied the history of the rebellion have forgotten the services rendered in its suppression by the troops of the Nizam. The celebrated "Nizam's Horse," lighter armed and more active than our own cavalry, and more used to combat with the climate, followed the retreating rebels where European regiments could not penetrate, and were a principal cause of their inability ever to gather any considerable head. The fight at Rawul witnessed a conspicuous display of gallantry on the part of the Hyderabad contingent, resulting in the capture of eight guns and a large quantity of warlike matériel. To the destruction they effected was attributed the inability of the rebels to obtain possession of Neemuch, the capture of which the reception of the siege guns then taken would probably have enabled them to accomplish. On the fall of Gwalior, the forces under Tantia Topee declined to encounter the Hyderabad cavalry,



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whose prowess they were fully able, from past experience, to appreciate. The acknowledgments of the services thus rendered were numerous and substantial, and, while bearing a complimentary despatch to the Nizam, Captain Fraser had ample opportunity of ascertaining how far the subjects were from sharing the loyalty or the zeal of their ruler.

In January, 1859, I was appointed second Assistant Resident at the Court of his Highness the Nizam, and in February, 1859, Colonel Davidson proceeded to Calcutta, and, on his return, paid a visit to the Nizam, with a view to the presentation of a khurreeta (despatch) from his Excellency the Governor-General. On returning from durbar, close to the room in which this interview had taken place, a native, said to be from Hindustan, discharged a carbine, and wounded one of the minister's attendants, and then, drawing his sword, rushed upon Colonel Davidson and the minister, who at this moment were walking arm-in-arm in conversation with each other. I drew my sword, and threw myself before Colonel Davidson, but, fortunately, the assassin was intercepted by the minister's dependants, and cut down. Had the man attempted to pass me, I should there and then have cut him down; but seeing that several of the minister's attendants were cutting at him, I refrained from joining them, and Colonel Davidson observed to me afterwards that it was fortunate I had done so, as most probably the crowd, who were all armed to the teeth, would have become excited at seeing the Feringhee killing a Mohammedan, and would have fallen on the whole of the staff, and thus all our lives might have been sacrificed. There can be little doubt, Colonel Davidson reported, that he shared in the fanatical feeling of the period against all Europeans throughout the country, and that he had expected, by the destruction of the Resident or the minister, to gain for himself the envied title of Ghazi (champion of the faith)!

The substantial results which the Nizam derived from his fidelity consisted of presents of English manufactures, valued at one lac of rupees, and the addition to his dominions of the principality of Shorapore, forfeited by the late Rajah in consequence of treasonable practices. A debt of fifty lacs of rupees due to the Government was cancelled, and the districts of Raichore and Dharaseo were restored to him. He subsequently received the order of the Star of India. His relatives and ministers also received rewards proportionate to their rank and services.

The foregoing affords a fair *résumé* of the more important events described in the historical portion of Captain Fraser's work. No attempt has been made to lend dignity or interest to the recital by a narration of any of the great wars in which, in alliance with ourselves, successive Nizams were engaged. On the contrary, Captain Fraser has confined himself to a simple and unembellished record of the foundation and establishment of the power of the Nizam, and a demonstration of the fidelity to the British Government, all but unbroken, which the consecutive Governors have maintained.

As a contribution towards the history of India this work is valuable. For the general reader it will possess few attractions. The large number of Indian terms, which in a book of this kind cannot be dispensed with, constitutes a great drawback from its chances of popularity; and the glossary at the end is by no means so full as it might with advantage have been made. It does not contain such words as Oomrahs, Soobah, Poorbeahs, which occur in the text, and which, assuredly to the ordinary reader, need some form of explanation. The chapter of greatest interest in the volume is one devoted to a consideration of the value of the valley of the Berar as a cotton-field. This valley is the only portion of the dominions of the Nizam which we now hold in trust. Its soil is a rich black loam, and it furnishes for the cultivation of cotton a breadth of land adequate to supply the full demands of Great Britain.

Captain Fraser's work is well written, and its contents have every appearance of complete accuracy and trustworthiness. A considerable portion of his volume is taken up with appendices, many of which consist of papers of considerable interest.

## PRINTER'S INK.

*Scraps and Sketches Gathered Together.* By Sir Lascelles Wrexall, Bart. (W. H. Allen & Co.)

THE late Sir Lascelles Wrexall revelled in the smell of printer's ink. Had he been a cook instead of an author, he surely would have solved satisfactorily that now difficult question, "What to do with the cold mutton?" No man would have been his equal at a *salmi*. The picked bones of yesterday would have helped out the day's dinner as an appetizing dish; or, at least, would have looked well upon the table, as in some economical families boiled rice does when it assumes, for the nonce, the tempting shape and form of blanchmanger.

These "Scraps and Sketches" are not without merit; but most, if not all of them, have recently appeared in some of the popular periodicals of the day. Consequently, the charm of novelty is wanting; and this is always the chief attraction in the class to which such papers belong—sketches of foreign manners and customs, written on the spot where the scene is laid, recording the impression left on the mind of the writer at the moment, and claiming no other merit.

The dog instinctively, by a wise provision of nature, returns to his vomit; the unsightly thing is cleared away, and there is an end of it. Without his instinct, many writers of our day seem to have been bitten by the dog, and their complaint is literary hydrophobia in its worst form; for the more cold water that is thrown upon them, the more inveterate is the disease. To-day they scatter broadcast crude essays and papers, in every shape and form, over the extensive field which cheap periodical literature opens up to them. No sooner does the paper appear in its original shape, than it is carefully cut out of the periodical, to which it has served, perhaps, only as padding, and put by for future use, docketed, till in due time the progeny of a prolific brain furnishes the necessary quantity to form a volume.

To publish the posthumous remains of an author who has achieved a name for himself is laudable. Some of the most interesting contributions to English literature are of this class. But why "gather together scraps and sketches" which, having served their purpose, are decently buried in the forgotten pages in which they originally appeared? Things thrown off for the moment with a certain amount of raciness are all very well while fresh. A maid-of-honour, fresh from the *cuisine* of the Star and Garter, is relishable with its adjuncts. No one cares to have the fly-specked dainty which has done duty for weeks in the pastrycook's window warmed up and placed before him as something nice.

The multiplicity of books is necessarily great in an age in which the ability to write with ease is considered the chief quality required. A fluent, chatty style is what most magazine-readers relish. Hence the popularity of writers of the class to which the late Sir Lascelles Wrexall belongs, who can say the little they have to say in a certain measured prose, the rhythm of which falls pleasantly on the ear, like the distant sound of a waterfall, or the rippling of a brook, and satisfies the physical if not the mental sense of the reader.

Having served their turn, and the purpose for which they were written, surely it were wise to let them pass into oblivion. This *furor* for collecting and reprinting such literary ephemera is a growing evil against which we loudly protest, not merely in any individual case, as in the present, but in every one where bookmaking and catchpenny are natural synonyms.

Sir Lascelles Wrexall had the *cacoethes scribendi* in its most malignant form—that which, eschewing quality, looks mainly upon quantity as the test of value. Yet some of his scattered papers possess the merit of describing scenes in which he had mixed in an original manner, and with all the fresh-

ness of an eye-witness; and of these the two volumes under notice contain some dozen descriptions of life in Germany, which, in a volume by themselves, might have been worthy of a reprint. During the autumn months some of the German baths are crowded with English visitors, seeking health and recreation. Of these, at this moment, Baden-Baden seems the very centre. Having inaugurated the month with its races on the 1st inst., which were attended by a host of members of the English and French Jockey Clubs, the gay little city now holds forth among its attractions the wild boar hunts which are annually provided in September for the enjoyment of visitors who honour the gaming-tables with their presence.

One of these hunts is thus described by Sir Lascelles, which is a very fair sample of the style of the thirty-eight articles out of which the two volumes consist:—

As long as I can remember, I have ever felt a strange inclination to be present at a boar-hunt. Surely it could not be reminiscences of Meleager, and the fierce Hyrcanian boar. But no; these and other heroes of antiquity could only summon up recollections of many a dire flogging they had cost me. But still the fact remains the same; the name itself possesses something very exciting for me. It reminds me of legendary lore—of scenes of danger and strife, baying of hounds, trumpet-sounds, glittering dresses, and all the gorgeous panoply with which the great Magician of the North has invested the creatures and creations of his fancy. At length my long-nursed wishes were to meet with realization.

M. Benazet had expended all the *Edel Hirsche* he had been furnished with from the grand ducal park at Carlsruhe, and, like a clever manager, who reserves his chief attraction for the season when the public taste begins to pall, suddenly came out with a flaring *affiche* that a boar would be started on the ensuing Monday; the meet, a forest about two leagues—or, according to German admeasurement, three pipes and a-half—from Baden-Baden, and at no great distance from the willow-covered banks of Father Rhine.

A party was soon formed at the *table d'hôte* of the hotel where I was accustomed to dine; horses ordered to be sent on, and a calèche to be held in readiness for us on the Monday morning.

All my preparations being made, I sallied out to join my "compagnons de voyage" at breakfast. I found them also all armed and eager for the fray. They were three in number—an Englishman, a Frenchman, and an Italian. Let me describe their appearance minutely. The first was attired in immaculate tops and leathers and a well-stained coat, which had once been red, but was now purple. Having almost lost all recollection of our national (hunting) costume, I took him for one of the grand duke's footmen on furlough—an opinion in which I was not singular, for later in the day a party of God-forgotten students saluted him with the rattling *Commers Lied*, "Was bringt der postillon?" The Frenchman was dressed in a green velvet hunting-frock, and wore a many-tasselled, much-befringed *gibecière*, large enough to contain the boar we were about to hunt. On his head was a black velvet jockey-cap; on his shoulder a double-barrelled carbine. The Italian resembled nothing, except a mild edition of "Fra Diavolo," wearing, as he did, a tall conical felt hat, and a belt graced by a couple of pistols. With these companions I ascended the creaking steps of the *Droschki*, humming, as I did so, the time-honoured "refrain," "Arise the burden of my so—ng, This day a stag (it was a boar we intended to kill, but then I was in no way particular)—must die this day," &c.

The morning, which, at starting, was beautiful and fresh, soon turned to mist and rain, and a Baden mist is a very detestable visitant. However, at length the village of Sandweier was reached, and the weather clearing up, the huntsmen marshalled in proper order and set off for the forest glade where the boars were cabined and confined in hutches with trap doors to turn them out at:—

The pack was the most lamentable part of the whole affair; Jorrocks, that M.F.H. of facetious memory, would have shed tears had he seen it; it was composed of foxhounds, harriers, lurchers, turnspits, even the "cur of low degree" was not absent, all making a horrible noise and yelp-



ing fearfully whenever M. le Comte de S——, Benazet's huntsman *en chef*, rode in amongst them and liberally laid about him with his double thong. The whip-smacking and trumpet-blowing seemed to have no end.

At length, when the beaters had been drawn up in a great semicircle, and every one was waiting in eager expectation for the decisive moment—

The jäger horns sounded cheerily. "Lässt gehen!" shouted Count S——, a cry which was taken up by a thousand throats, and in every possible variety of translation.

Out the boar stalked, and amused himself by a long and pertinacious stare at the scene which met his astonished vision. He was an animal of very respectable size, and in the possession of a considerable amount of sharp and well-whetted tusk. At length he seemed to have decided on his proper course of action. Shaking his head very significantly, he came along at a quick, shuffling trot towards the beaters, as if intending to force his way through them. But we were not to be balked of our pleasure by any such display of valour; and as soon as he arrived within assailable distance, they attacked him with their long staves. At first he was inclined to show fight; but not relishing, and probably not expecting such a reception, he gave a few angry growls, and then turning tail, started for the wood in front of us. Five minutes' grace was generously conceded him, and then the dogs were laid on the scent, apparently as dreadfully eager to be at him as was the Earl of Chatham, who, with his sword drawn, was waiting for Sir Richard Strachan, or *vice versa*, I hardly remember which, to be at the French.

After two hours' hard work, chasing our bristly friend from thicket to thicket—which, by the way, caused awful havoc among the gaily-checked trousers of *la jeune France*—we drove the boar from his last entrenchment, and had a capital run after him through corn and potato fields to the village of Iffezheim, when he took refuge in a pigsty, among his porcine relatives. A second time we set the dogs upon him, but they fairly showed the white feather, and the old adage was fully verified, "their bark was worse than their bite."

At length the Count gave the signal to start him afresh, and one of the *piqueurs* gave him a persuader with his hunting spear. After a fierce grunt of dissatisfaction, the animal made up his mind to leave his present comfortable quarters, and started off towards the Rhine, apparently with the intention of taking to water. The best mounted, therefore, hurried along to cut him off, in which they succeeded, and he sulkily bent his way once more to the forest. Only a few of us managed to keep up with him at all; as for the dogs, they had long been left behind. It was, therefore, time to end the farce; with levelled spears we pushed on after him, and soon brought him to bay.

The united valour of the International trio has its reward, and the boar is slain, each tarnishing the hitherto unsullied spotlessness of his spear in the victim's blood; upon which four *piqueurs* dismounted, and forming a *brancard* of their spears, laid poor piggy, once the hero of the day, upon it, and the heroes marched off at a quick pace to receive the meed of valour at the hands of the expectant ladies.

It will be seen from this long extract, taking it as a fair specimen of the author's manner, that the book is well enough suited to while away an hour between lunch and dinner at Baden-Baden, or at any of the other German baths, when the thermometer stands at 80° in the shade, and even a lodging-house sofa tempts one to throw oneself at full length upon it at the open window, with the solace of a book in one's hand, which will rather induce than drive away repose and quiet. There are other reminiscences of Baden-Baden and other German cities. Indeed, as a gossiping guide, as far as it goes, this collection of "Scraps and Sketches" will be an agreeable companion to German tourists who have not met with the separate pieces before.

#### NEW NOVELS.

*Constance Sherwood: an Autobiography of the Sixteenth Century.* By Lady Georgiana Fullerton. 3 Vols. (Bentley.)

**H**ISTORICAL novels are a class of fiction which requires a master hand and a master mind. Walter Scott, with all his won-

derful acumen, descriptive power, graphic portraiture, and thorough knowledge of his subject, does not escape the imputation of giving a false colouring to his facts, thereby rendering his charming tales and romances at variance with the truth which history is supposed to record—supposed to record, because in these times of subtle inquiry and uprooting of the recognized traditions, belief in virtue or greatness is no longer a portion of our creed as regards the most renowned of our Queens of England, and "no scandal of Queen Elizabeth, I hope?" but a cry of the past. Lady Georgiana Fullerton, under the form of an autobiography of the sixteenth century, has promulgated her religious views and opinions in writing the life and adventures of one Mistress "Constance Sherwood," the only child of the Squire of "Sherwood Hall, in the county of Stafford."

While Constance is very young her mother dies, and her father sends her to London to dwell with her aunt, Mrs. Congleton, in consequence of the troubles which befell the Romanists in the reign of Elizabeth. The intimacy of Ann Dacre, afterwards Lady Surrey and Arundel, with Constance Sherwood, is made the thread upon which is strung a host of cruelties at the hands of the Queen, whose enticements of the youthful Earl into the dangers of the Court, and scornful repudiation of the legality of his marriage with Ann Dacre on the occasion of the Royal visit to the Duke of Norfolk's family at Charter House, during the Duke's imprisonment in the Tower, is thus described, in reference to the betrothal or first marriage having taken place before the bridegroom was twelve years old:—

"Constance," quoth she, "we be full young, I ween, for the burden laid upon us, my lord and me."

"Ay, dear lady," I cried; "and God defend you should have to carry it alone;" for my heart was sore that she had had so little favour shown to her and my lord so much. A faint colour tinged her cheek as she replied:—

"God knows I should be well content that Phil should stand so well in her Majesty's good graces as should be convenient to his honour and the furtherance of his fortunes, if so be his father was out of prison; and 'tis little I should wreck of such slights as her Highness should choose to put upon me, if I saw him not so covetous of her favour that he shall think less well of his poor Nan hereafter by reason of the lack of her Majesty's good opinion of her, which was so plainly showed to-day. For, good Constance, bethink thee what a galling thing it is to a young nobleman to see his wife so meanly entreated; and for her Majesty to ask him, as she did, if the pale-faced chit by his side, when she arrived, was his sister or his cousin. And when he said it was his wife who had knelt with him to greet her Majesty—'Wife!' quoth the Queen; 'if faith, I had forgotten thou wast married—if indeed that is to be called a marriage which children do contract before they come to the age of reason;' and said she would take measures for that a law should be passed which should make such foolish marriages unlawful. And when my lord tried to tell her we had been married a second time a few months since, she pretended not to hear, and asked M. de la Motte if, in his country, children were made to marry in their infancy. To which he gave answer, that the like practice did sometimes take place in France; and that he had himself been present at a wedding where the bridegroom was whipped because he did refuse to open the ball with the bride. At the which her Majesty very much laughed, and said she hoped my lord had not been so used on his wedding-day. I promise you Phil was very angry; but the wound these jests made was so salved over with compliments, which pleasantly tickle the ears when uttered by so great a Queen, and marks of favour more numerous than can be thought of, in the matter of inviting him to hunt with her in Marylebone and Greenwich Park, and telling him he deserved better treatment than he had, as to his household and setting forward in the world, that methinks the scar was not long in healing; albeit in the relating of these passages the pain somewhat revived."

At the age of sixteen, Constance becomes acquainted with Basil and Hubert Rookwood. Both brothers are in love with her, but the elder one wins her heart. About

this time she hears from her father, who had been ordained at the English College at Rheims, and was on the watch, he "advertised" her "for an opportunity to return to England, for to exercise the sacred ministry amongst his poor Catholic brethren." Soon after, Constance goes to visit Lady l'Estrange, at Lynn Court, who, in charitable care for some poor patients she had tended that day, speaks of one whose hands were sorely wounded, but who seemed by "his behaviour and apparel to be a gentleman."

"Where doth this fellow lodge?" Sir Hammond asked across the table, in a quick eager manner.

"At Master Rugeley's house, I have heard," quoth his wife.

Then his fist fell on the table so that it shook.

"A lewd recusant, by God!" he cried. "I'll be sworn this is the Popish priest escaped out of Wisbeach, for whom I have this day received orders to make diligent search. Ah, ah! my lady hath trapped the Jesuit fox."

I looked at Milicent, and she at me. O my God, what looks those were!

The priest turns out to be Mr. Sherwood, under the name of Mr. Tunstall, and, notwithstanding his daughter's courageous efforts to effect his escape, the fugitive is captured and lodged in Bridewell. Interest is made for him through Hubert Rookwood's influence with Walsingham, and the Queen grants Mr. Secretary "the order for that foolish man's banishment from our realm." Minor troubles and cares from persecuted Catholics disturb the peace of Constance, until at length her marriage with Basil Rookwood was about to take place, when the Queen signifies her pleasure to visit the Eastern Counties, and, among other dwellings in her progress, intimation is forwarded to Basil that she will tarry for the night at Euston, in Norfolk, the family estate of the Rookwoods. Preparations are hastily made, and "all the books and Church furniture, with the image of the Blessed Virgin, are secured in a safe hiding-place." But the treachery of the apostate brother, Hubert, reverses all. Basil is banished by the Queen from his house at once; and the next day, after the public burning of those hidden treasures, Constance is visited by Walsingham, and in the Queen's name is "graciously desired" to marry "young Rookwood, her newly-appointed servant, and from this time possessor of Euston House and all lands appertaining to it, which have devolved on him in virtue of his brother's recusancy and his own recent conformity." Constance declines to obey, and Basil is imprisoned a year and two months at Norwich.

Meanwhile, Lord Arundel "becomes Catholic," and, after much cruel neglect, is reconciled to his wife, whereupon the inhabitants of Arundel present the countess as a "recusant," and the Queen "disliking the reconciliation," she is conveyed to Sir Thomas Shirley's, at Wiston, and kept a prisoner until further orders. In a year's time Lady Arundel is released, and returns to the Castle, when, by way of variety, the Queen imprisons the husband in Arundel House, but happily he so clears himself of the charges brought against him before the Commissioners, that he is soon set at liberty.

At last Basil Rookwood, who had escaped to France, returns under a feigned name, and is hidden at Arundel Castle, where Constance and he are married; and Lord Arundel, weary of persecution, hires a vessel to convey himself and them to Boulogne, but he is betrayed and taken to the Tower, where he dies after ten years' imprisonment, his wife never once being allowed to see him, besides which she meets with other cruel treatment at the Queen's hands.

The Rookwoods lived happily in France with their three children; Basil having recovered his estates by his brother's death and the accession of James I. But, though recalled from banishment, he refuses "so much as to think of it."

It will be seen that Lady Fullerton's aim is to strike a heavy blow at the Reformation under Queen Elizabeth; and she prints, in



furtherance of this object, an appendix of extracts from authorities, the value of which, at best, is doubtful. The great fault of the book is the tediousness of the style, a bad and pointless imitation of that of the period in which the story is placed—the glorious Elizabethan era of our language and literature. Written for those who participate more or less in the author's views, "Constance Sherwood" may possibly attain to some popularity with that class of readers. As a circulating-library novel, its wearisome phraseology must ever be a drawback to greater popularity.

*The Wilmot Family.* By Mabel Sharman Crawford, Author of "Life in Tuscany." Three Volumes. (Bentley.)

IN "The Wilmot Family" we have a descendant of the Puritans of 1635, a fine old English yeoman, whose "little bit of pride" in his ancestor, Geoffrey Wilmot, who fell fighting on the Commonwealth side at the battle of Naseby, gives elevation to a character otherwise remarkable for humble-mindedness, simplicity, and perfect contentment with the station of life "in which Providence had placed him. An income from his property of 250*l.* a-year supplied every want he knew; the homestead of Marwood, Elizabethan in its architecture," could not be excelled in picturesque beauty by any farm-house in England; nor could the present Geoffrey Wilmot desire for himself a prouder position than that he now held as successor to his yeoman forefathers, "who had occupied the house and possessed the lands of Marwood for several centuries." But Mrs. Wilmot, the daughter of a small farmer, and much younger than her husband, is blessed with an ambitious mind, an intense love of dress and finery, and a tiresome temper. She has much affection in general for her husband and their two children, and more in particular for her son Richard, who, like herself, is fond of gaiety, and longs to rise in the world and be fashionable. Annie Wilmot is a loving, gentle girl, shy and timid, attached to Harry Lennard, a millowner at Millbrook, and, with her father's sound good sense, like him, esteems their present condition as wisest and best. Suddenly, by the death of a distant relative, who has in a moment of passion disinherited his nephew, Edward Graham, Geoffrey Wilmot is apprised by the lawyers, Crookley and Twist, that Richard Wilmot had bequeathed to him the splendid residence called Thornley Hall, and estates to the value of upwards of 18,000*l.* a-year, in Yorkshire. To Geoffrey and his daughter this astounding fact brings distress and trouble, but to the mother and son joy and gladness uncontrollable.

Take for instance a page hap-hazard describing well the Wilmot family:—

"Why, Annie, child, what, for all the world, can be the matter with you?" exclaimed Mrs. Wilmot. "Why, here, when we all are like to go crazed for joy at the thoughts of our good fortune, you look as if you were going to be executed."

"Oh, mother! it's no good news to me," faltered Annie, timidly. "I do not care for riches. I would rather they had not come to us. I never will be as happy anywhere, I am certain, as I have been at Marwood—no, never!" said Annie, with mournful earnestness and tear-dimmed eyes.

"Well, I'm sure I never saw such a girl!" said Mrs. Wilmot, tartly. "The like of such nonsensical notions as you've got I never heard. Why, what is to prevent us from being as happy as we have been here? Nothing that I know of. And I venture to say we'll all be a deal happier, too, than ever we were before."

"Wife! wife! there's truth in the girl's words," said Geoffrey, in a gloomy tone. "What do we want for more than what we have had already? Peace, plenty, love, respect, and happiness that has seen no cloud. What could all the gold in England purchase better, or more precious? Ah! belike, wife, none of us will be half as happy in our new grand home as we have been here."

"Upon my word, Geoffrey, I can't see there's a bit of reason for such fancies as yours and Annie's," returned Mrs. Wilmot. "Sure, if

we're going to have a change of fortune, we're not going to change our natures also, and quarrel amongst ourselves. Sure, our hearts will be all the same in a large house as in this cottage-home. If it wasn't that Annie had put the notion of our being unhappy into your head, I am sure it never would have entered your mind; and, I warrant you, she'll change her opinion on the matter fast enough. There's Richard will tell you, I'd give my word, that he isn't troubled with any misgiving on the matter."

"But you're wrong, mother," exclaimed Richard, with a loud laugh; "for I tell you I have a great misgiving on the matter—yes, indeed, a terrible misgiving; for I'm fearing that this delightful news we've heard is too good to be true—too enchanting—too glorious to be real! I declare I could shout for joy just to think of it. Won't I be happy playing the gentleman?"

As Richard ended his remarks he gave vent to his exuberant happiness by indulging in some pantomimic sparring with an imaginary antagonist.

Uprooted, and with sorrowful misgivings, Geoffrey, for his son's sake, prepares to take possession of Thornley Hall; and then, of course, the family undergo the terrible ordeal of being placed in a position wholly unsuited to them.

The aim which the authoress has set before herself in this story she has fairly worked out. It is not merely the illustration of the school-text copy that "riches are not happiness," but the book displays, with graphic delineation, the sorrow and misery arising from the sudden removal of persons from a sphere of life wherein they are respected and esteemed to one in which they are ridiculed and unfitted by education and habit to enter. The character of Georgina Charteris, the flirt, and Richard Wilmot, the dupe, are each cleverly depicted, and the general consistency of design is well sustained throughout. "The Wilmot Family" is likely to please a very large class of readers, as, without rising beyond the fair average of a good circulating library tale, it is never tedious and commonplace.

#### WORKING MEN.

*Heads and Hands in the World of Labour.* By W. G. Blaikie, D.D., F.R.S.E., Author of "Better Days for Working People," &c. (Alexander Strahan.)

THIS book is intended to help its readers towards the solution of the gravest social problem of our age—how to change the relation between employers and employed from one of mere barter to one of human affection and mutual respect and love. It is written in the kindest spirit, and after considerable investigation of the numerous experiments which philanthropic employers of labour have made for the general benefit of their work-people. It is based on strictly "Evangelical" principles; setting forth "the Gospel" of orthodox Protestants as the great lever which is to elevate the lower classes of society, and distinctly affirming the necessity of those supernatural aids which are attributed in the popular creeds to the special agency of the Holy Ghost.

Important in their own place (the author says, pp. 239-241) though all [secular] means of improving the condition of the working classes are, and therefore deserving all encouragement from philanthropic employers, it should ever be remembered that one method of elevation possesses a paramount importance and efficacy—the Gospel of the grace of God. . . . To promote mere secular plans for the improvement of the masses, and stand aloof from the Gospel, would be like the folly of banishing the steam-engine from our workshops, and leaning on human thews and sinews for the work which is done so much more easily and efficiently by the great giant-power. It would be like shutting out the light of the sun from our houses and places of business, and lighting candles to supply its place. The Gospel is God's blessed gift for the salvation of souls and the regeneration of the world: to thrust it aside, and employ mere human agencies to do its work, is alike dishonouring to God and cruel to man.

The same sentiments are expressed again and again throughout the book; and they influence very seriously, as they could scarcely

fail to do, both Dr. Blaikie's judgment of past experiments and his suggestions for future effort.

Now, with the profoundest conviction of the enormous power of Christianity to promote the social blessedness of mankind, we yet entirely doubt the wisdom, or even the possibility, of employing it at all in the manner indicated by Dr. Blaikie. It is impossible, because social reformers themselves are becoming less and less inclined to pledge themselves to all the dogmatic conclusions of the popular creed; and also because there is a profound and deepening distrust and disbelief of those conclusions among working men themselves. They imagine, in their more irritable and suspicious moods, that when a master tries very hard to make a whole factory full of people religious, he is simply identifying his own interests with those of Almighty God, and getting a kind of Divine sanction for all the bye-laws of his own works. They think that the established faith is always on the side of the powers that be; and they complain, often very bitterly, that a religion which bids them be content with such things as they have, and obey their masters in all things, is quite unfit for those classes of the community whose great aim it continually is to rise to a higher and better position. Of course, these complaints may be the result of a very imperfect knowledge of what Christianity really is; but we have to do with the people whose knowledge of Christianity is lamentably imperfect, and therefore it would be preposterous to treat them as if they were expert divines. Besides, if we are "dishonouring God" by employing "mere human agencies," it is hard to perceive how we can escape that sin, for no other agencies are at our disposal. It is, to say the least, unwise to encumber philanthropic movements with the heavy burden of metaphysical mysteries, which may or may not be true, but are certainly irrelevant. Dr. Blaikie himself tells us, in this very book, how one very promising social reformation was brought to grief by a difference of opinion which arose among the managers about the expediency of encouraging "religious revivals." We may confess that we are not in the least surprised to hear it; and that, in our judgment, to let loose the devil of fanaticism and fierce excitement among two or three thousand factory girls would be in the highest degree foolish and criminal.

It is the same kind of defect or narrowness which so much lessens the social significance and value of much of the good work that is done in many of the large warehouses and shops of London; and which is described—with just a shade too much, may we suggest? of advertising colour—in the pages of Dr. Blaikie's book. These efforts for the good of young men are really Christian, Evangelical Missions. Their great end is the promotion of piety and orthodoxy. In one of the largest of the establishments referred to by Dr. Blaikie, to our own knowledge, after a lecture on "Carlyle" to a crowded audience, it was asked in the young men's committee-room, with the simplest wonder that any lecturer could be found to justify in any way so erratic a genius, whether Carlyle could be considered a true Christian—whether the lecturer thought that if he died he would go to heaven. Societies to facilitate "going to heaven" may be very good things; but they are not always adequate to the solution of those difficult problems which concern the righteousness and felicity of earth.

In like manner, even the good work which Dr. Blaikie recommends, he seems to us to place on the wrong foundation. Christian brotherhood is no excuse for mutual wrong. The working man wants justice, not generosity; first the payment of his just debts, and then as much love as you like. The puzzles that perplex the working class can be solved, not by Christianity, but by political economy, and by that alone. It may truly be said that there is no difference of opinion about those duties and obligations which are not indeed created, but expounded and



enforced, by Christianity. Ought men to love one another? Ought servants to cheat their masters? Ought masters to cheat their servants? Ought either to exact from the other more than is due? To what human being, in this country, do such questions cause a single moment's hesitation? The really difficult questions are of a very different sort. What is cheating? What is a just wage? Do the capitalists get too large a share of the produce of labour and capital? Is the wealth of the country distributed fairly, in proportion to each man's share in producing it? Not even the Sermon on the Mount can furnish us with the answers to such questions as these. The work which Dr. Blaikie urges on masters, belongs to them *not* as masters but as *men*. A man is not bound to provide his servant with education and books, a cricket ground and a bath-room, *because* he pays him a day's wage for a day's work. In fact, it may be doubted whether it is not a disadvantage that the masters cannot divest themselves of mastership altogether, whenever they undertake the work of the philanthropist.

The relations between employers and employed will probably be rendered harder and more impersonal by the rapid multiplication of large companies, and the substitution of "boards" for individuals. Almost every great firm is becoming a great company "limited"—limited in all ways, and especially in the power of spending money for any other purpose than that of augmenting dividends. Is it likely that companies, made up of men of all the sects of England, will do much in the costly direction of building churches for the "hands," in which the orthodoxy of one-tenth of the partners and the heterodoxy of nine-tenths shall be preached? "Day and Son, Limited," has no affection, no love; it has nothing but wages for work. And what more, as employer, ought it to have? And what more, as employed, ought the workpeople to expect? Do they want their masters to make them presents, to give them money which they have not earned? It always seems at first a hard, disagreeable business to learn facts, and to ascertain the simple justice of a case; but it is very plain that that lesson must be learned, and the sooner it is learned the better. Meantime, each man is bound, as far as possible, to prove his justice, to enlighten his people so far that they may know they are not cheated; or, otherwise, to take the consequences of their ignorance. And, by the way, if every master explained matters to his men, so that they would understand at once the magnitude and the justice of his gains, might there not be some incidental advantages to the revenue, some new assessments for Income Tax?

What does determine, what may, can, will, shall, through all the moods and tenses, determine the just rate of wages—anything beyond which shall be a gift and not a debt?—is not that the question which working men are clamouring to have answered? To this absolutely vital, fundamental question, there is not even the approach to an answer in Dr. Blaikie's book. Nor can the question be answered by anybody who is not prepared to invade the sacred right of the human animal to replenish the earth with the recklessness of a rabbit or a herring—the sacred right of a man who cannot keep himself to marry a woman who cannot keep herself, and to have a dozen children who cannot keep themselves, in the vain hope that a great number of nothings added together may perhaps be persuaded to be something. Unfortunately, this absurdity is more fostered by religious people—and especially by the more ignorant of town and city missionaries—than by any other class. They see so much of the miseries of lust and lawless intercourse, the dreadful cruelties to which women are subjected by men who ought to be, but are not, their husbands, that marriage—early marriage, the marriage of every marriageable person—seems to them a necessity of civilization. It needs long culture to enable people to sacrifice the little near to the great remote, or even to

abstain from an enormous future evil by the sacrifice of a little present apparent good. Yet, putting aside all mere sentimentalism, that our true feeling may become deeper and more fruitful—abandoning misinterpretations of Scripture for common sense—reformers must teach the poor that the wealthy classes are wealthy *because* they are the self-denying classes, the provident classes—because they do not marry "like brute beasts that have no understanding." The poor must be taught that what produces capital, and the fruits of capital, is *abstinence* and *knowledge*, and that both these are within the reach of almost every living Englishman.

Dr. Blaikie's book is full of kindness—a book pleasant to read, and of a sort to make one more human, or, which is the same thing, more *humane*. But it is not the work of a philosopher; and in religion it is one of innumerable proofs how far the people are from understanding the words of Jesus Christ—"When the Spirit is come, *He shall not speak of Himself*." W. K.

*Revue des Deux Mondes*. Sept. 1.—A review of M. St. Hilaire's "Mahomet et le Mahometisme," by M. Ch. de Remusat, cannot fail to be interesting. Starting with the axiom that there are many religions, but only one morality, M. de Remusat compares incidentally the three great religions of the present time, Buddhism, Christianity, and Mahomedanism. He observes well, that through the slight notice of Melchisedec in the Bible, we become aware of the existence of a very early monotheism, though no further notice is preserved of it. Probably some worship of the kind was always continued in the East, independently of the Jews. He shows how very doubtful and temporary the success of Christianity always was to the east of Palestine, and how hopeless any idea of evangelizing the modern Arabs, or even the modern Turks, must necessarily be. The article is well worth studying by those who believe in the proximate overthrow of all religions but the Christian. We have the second part of M. de Hauranne's diary in America during the last eight months of the war. This portion carries us through July and August of 1864, just when the last appeal to arms was made by President Lincoln. The manners of the wealthy, but ill-educated, Americans are severely dealt with. The writer spent some part of this time in Canada, and preferred what he saw there very much. M. Boissier analyzes the splendid work of Rossi on the catacombs of Rome. Science is represented by the learned essay of A. Maury, on the progress of organic chemistry; and politics by an article on the Liberal crisis in Spain.

*A Spring Holiday in Italy*. By Alex. Maclaren. (Simpkin & Marshall; Palmer & Howe, Manchester.)—This book is nicely written enough, but contains absolutely nothing new. Naples, Rome, Florence, and Venice, were the author's resting-places. He tells us he could not think of going to Pompeii by rail. When at Naples, we saw nothing ignoble in that mode of transit, and, as we arrived fresh, were able to pick up for ourselves much more than the old stories about the Roman sentinels, and the casts of Diomed's household. We are told that Galileo was racked into abjuring his heresy. The rack of Galileo only exists in the stories told to spring tourists. We do not want two pages about the Dying Gladiator; nor two more about the Transfiguration. Much has been done for the Catacombs at Rome since we visited them, but Mr. Maclaren can tell us nothing. We turned eagerly to the chapter on Florence, because since we were there it has become the capital of Italy; but there is not a line to show us that the slightest alteration has taken place in the Queen of the Arno during the last fifteen years, though we guess, even from the newspapers, that we might now scarcely be able to find our way from Doni's to the Duomo. The book may amuse those who know nothing of Italy, and this is the best we can say of it.

*The Evils of Overcrowding in the Dwellings of the Poor, and Means Suggested for their Removal*. By William Hardwicke, M.D. (London, 1865.)—Public attention has fortunately long been directed to improvement of water supply, of drainage, and to the removal of such nuisances as are visible and palpable to the senses. Comparatively little, however, has been

done to remedy those invisible but dangerous poisons engendered by confined exhalations from human lungs and skin which result from deficient and defective house accommodation amongst the poor. This subject Dr. Hardwicke, who is Deputy Coroner for Central Middlesex, and well known for his experience in the matter, has here ably, though succinctly treated. Within the meagre limits of a small pamphlet it is impossible thoroughly to exhaust the subject; but the writer, after giving his experience of the present deplorable state of the dwellings of the poor, offers his advice as to what he considers remedial measures. He proposes, amongst other things, that boards of guardians, parishes, municipal corporations, and other companies, should exercise the powers they possess of purchasing sites and building suitable residences for the poor; that building societies should be more extensively established, and that the arrangement of streets should be improved; that certain desirable changes should be made in the appointment of health officers and in their duties; that the function of the coroner should be enlarged, so as to include inquiry into death from any well-known preventible cause—a man, Dr. Hardwicke believes, having no more right to expose and propagate contagious disease, than he has to injure others in body or limb; and such an act should be made penal; that the Nuisance Removal Act should be amended, and its administration made compulsory; that the powers of the Metropolitan Board of Works should be extended, so as to enable that body to become the conservators of open spaces, and to carry out a systematic cleansing of our streets, courts, and alleys, by the constant collection and removal of dirt; and that, finally, a change should be effected in the laws relating to the sale and purchase of land and houses. Dr. Hardwicke does not believe endemic and epidemic diseases to be punishments sent from God for our "sins," but are the predictable consequences of what might by foresight and care be prevented. His pamphlet, or, to speak more correctly, its subject matter, is of the utmost importance to all of us, and we are thankful to the writer for the able way in which he has introduced it to us.

*One With Another*. By E. Wilberforce, Author of "Social Life in Munich." (W. H. Allen & Co. 1865.)—"One with Another" is a story illustrating the old proverb, "It is well to be off with the old love before you are on with a new." The subject is a good one, and ought to afford at least two good and well-contrasted characters, some mental analysis of their effect on the lover who stands between them, and if well set in a consistent and rational framework of incident, offers the main requisites of a good novel. In the present case, however, it is impossible to say that any of these indispensable requisites can be discovered. The young ladies have very little to distinguish them from one another—at least, in so far as the hero is concerned—except that he may be said to walk into love with the first, and to fall in love with the second, which latter method seems, in the author's opinion, the only proper and orthodox mode. On coming to a full consciousness of his position, the hero at first thinks—and we are not far from sharing his opinion—that nothing is more simple than an explanation which will set all things right; but he is too much the slave of a punctilious sense of honour to find the task before him as easy as he at first imagines. He consequently entrusts his case to the mediation of a friend, who finds his ardour in the service greatly increased by a passion he conceives at first sight for the lady to whom he is sent on so delicate a mission, and as she becomes immediately aware, and is very far from being annoyed at her second conquest, we might suppose the way clear for the entangled hero. But no; from some utterly unexplained *amour propre*, she resolves to have the man she has ceased to care for, and relinquish the one she really loves. The father of the second lady is a reclusive student, living at Dresden, whose withdrawal from the world is caused by the most absurd timidity, and incapacity to meet a false and dishonouring accusation. To clear his proposed father-in-law of this imputation, the hero makes a voyage to the North Pole, in search of a witness, who ultimately proves nothing at all that might not have been as well established without his assistance. The absurdity of an episode in the Arctic regions, which stops the progress of the story, and fills up one-third of its bulk, sins against every rule, whether of harmony or proportion. The awful mystery upon which so much is made to hang is the supposed theft of a rare chart, and heaven and earth are moved to prove an innocence



which might at any moment have been fully established by reference to its original possessor, who was known from the first to have given the chart in question to a friend of the hero. It is a comfort that all ultimately comes right, but it is rather by the author's providential care of them than by the energies of his bungling personages, who have every quality but common sense. The last part of the novel is the account, incidentally given of society among the English colonists (?) at Dresden. The hero's uncle, an old bachelor of the Regency, and the second heroine's aunt, an eccentric old maid, are the only persons in the book who have any pretensions to character, and they are but faintly drawn. In spite of Brazilian pirates and Arctic perils, which are dragged into its pages, there is nothing "sensational" in this novel, but we are not sure that its conventional morality, and the awful fear of what may be said of them under which all the characters live, are not as deadening as any of the criminal incidents on which an opposite school relies can possibly be depraving.

*Narrative of the Proceedings of Pedrarias Davila.* By Pascual de Andagoya. Translated by C. R. Markham. (Hakluyt Society.)—After Vasco Nufiez had made his famous discovery of the South Sea, he was rewarded, according to the very common practice of the Spanish Court, by finding, on his return to Darien, that Pedrarias Davila had been sent out to supersede him as Governor of Darien. In his train Pedrarias brought Andagoya, whose narrative we have before us. The Spaniards of that day had a fuller knowledge, through this expedition, of many of the tribes inhabiting the Isthmus of Darien than any European nation of even the present day. Pedrarias founded Panama in 1519; and taking that as a centre, proceeded to establish fresh colonies wherever he thought it expedient. In 1522 Andagoya was appointed inspector-general of the Indians on the isthmus, and on visiting the territory to the eastward received the earliest accounts of the country, afterwards known as Peru; but in consequence of an unfortunate accident which injured his health for a considerable period, he was obliged to hand over the fruits of his inquiries, and what turned out to be the conquest of an empire, to Pizarro, Almagro, and Father Luque, who then could not muster sixty dollars between them. They refused to follow the advice of Andagoya, and lost four years in consequence. We have some interesting details of the character of Atabalica, or Athahualpa, which confirm the current accounts of the bad faith and violence of Pizarro. Andagoya acted not only as a captain, but as a missionary, in Popayan. The Indians there "had no religion whatever, but lived according to the law of nature, with great justice;" and they asked, pertinently enough, "Why, if, as we declared, we had come to give them life and salvation, had we killed many of them with so much cruelty?" Andagoya is rather a favourable specimen of the early Spanish adventurers, and no better selection could have been made from the voluminous collection of Navarrete.

*Orthopraxy.* By H. H. Bigg. (Churchill.)—Orthopraxy is the art of treating deformities by mechanical agency. It includes both the restoration of deficiencies and the reinforcement of debilities. The author claims an hereditary right to the practice and improvement of mechanical therapeutics, and has certainly advanced our knowledge in the art which was introduced by Mr. Sheldrake and carried on by his own father. A very interesting analysis is given in the introduction of the "Compendious Way of Chirurgery" by the famous Ambrose Paré; and we have a curious account of the invention of Scarpa's well-known shoe for the treatment of club-foot: "Scarpa, in 1781, during a residence in Paris, chanced to pass Tiphaine's house. His attention was attracted by sundry paintings of deformed feet suspended about the door. These were drawings of children's feet, which Tiphaine asserted that he had perfectly cured. Scarpa sought Tiphaine's acquaintance, but he failed to obtain from him any knowledge of his method of treatment, except on one occasion, when Tiphaine made the oracular observation, 'Nature will not yield to violence, but only to gradual force.' Scarpa had recourse to artifice. He bribed Tiphaine's housekeeper, and, during the absence of her master, obtained admission to his private room. There he found nothing to satisfy his desires but a steel spring, lying on a cushion. This fragment of an apparatus prompted the Italian anatomist's ingenuity, and, after a few experi-

ments on spring power, he devised the shoe which bears his name." The book is copiously illustrated with woodcuts, and a few difficult cases are described at length.

*Photographs of Eminent Medical Men, with Notices.* Nos. 1, 2, 3. (Churchill & Sons; Ernest Edwards, Baker Street.)—Each of these numbers contains photographs of three medical or scientific men, both Englishmen and foreigners, with brief notices of their works. The series commences with Dr. Watson, Professor Owen, and Sir Charles Hastings. Of these, Professor Owen's portrait is much the best; there is a grim, yet goodnatured smile in the firmly-closed lips which is thoroughly lifelike. A list of his more important writings is attached to the memoir. The services of Sir Charles Hastings as founder of the British Medical Association are faithfully recorded by Dr. Barker. Then we have Dr. Burrows, Mr. Luke, and Dr. Paget, of Cambridge. The stern, delicate features of the last are well given by Mr. Edwards, who has probably studied under him. Dr. Clark, Mr. Probert, and Dr. Acland, compose the series for the present month. The portrait of the last is the best. The professor will long be remembered as having been the first to deliver the Harveian Oration in the English language.

*Epoch Men.* By Samuel Neil. (Nimmo.)—This book starts with the long-exploded fallacy that "history is rarely more than the biography of great men." It is a weak imitation of "Hero-worship" and "Representative Men." The subjects "exhibit forcibly the power of persistent purpose in the world"—a power quite as compatible with evil, and much more often found united with it, than with good. It is smartly got up, with gilt-edged leaves and clear type, and may be very fit for a lady's present. Its literary merits may be judged from this: "At the close of the same year Beatrice was married; but some secret, unascertained, yet soul-corroding grief must surely have found a lodgment in the recently vivacious heart of her on whom Dante had showered his young life's love, for," &c., &c.

*Lectures on the Diseases of Infancy and Childhood.* By Charles West, M.D. Fifth Edition. (Longmans, 1865.)—The present edition of this well-known book embodies the result of 1,200 recorded cases, and of nearly 400 post-mortem examinations, collected from between 30,000 and 40,000 children, who, during the past twenty-six years, have come under the author's care. The book has passed three editions in America, four in Germany, and has been translated into Danish, Dutch, Russian, and French.

*The British Army and Navy Review* has an article headed "How Wellington Won his Spurs." Turning to it, we find it concludes: "Thus ended the celebrated series of operations which gained Sir A. Wellesley his first peerage." To "win your spurs" means to arrive at the dignity of knighthood, not at that of a peer. These mistakes are not immaterial; they show, at the lowest, carelessness and haste.

We have received *The Youth's Magazine*, *The Sunday Teacher's Treasury*, *The Sunday Magazine*, *The Quiver*, and *Good Words*, in which there is an interesting account of "Orkney and the Orcadians." *Cassell's Illustrated Shakespeare* has a clever woodcut of Malvolio making his respectful love to Olivia. *Don Quixote* travels, elongated by the moonlight, towards the kingdom of Micomicon; and in this number *Gulliver's Illustrated Travels* are brought to a close, and we have the commencement of a Life of Dean Swift, which promises well. *Cassell's Popular Natural History* contains the sheep and the goat. We regret to see, in the *Holy Bible*, the destruction of Sennacherib's army ascribed to lightning; the Angel of Death is most awful when unseen.

*The Colonial Church Chronicle* for September has an article on "English Diocesan Remittances to the Society for the Propagation of the Gospel Compared." A table is given, which shows the amount contributed by each person on an average in every diocese; and then we have the reflections of the writer on the reasons why the amount is so small as less than one penny a person to the missionary society in sixteen dioceses, and less than one farthing in three. Then we are told how even a poor pauper, "giving a farthing a month, would advance the average of the whole diocese;" then, what would be the amount if everybody in Birmingham were to

give a penny. Indulgence in these calculations is a great social evil. It is a mode of levying Protestants', or Paul's Pence, as one day it will be called, which is particularly offensive and immoral. We are obliged to be up to, and indeed beyond, the average in dress, honesty, politeness, and in many other matters; but to be asked to raise the average of the income of a society is too bad. If we cannot afford to wear our boots in pairs, or keep our coats from being out at elbows, we must expect the grinning sneer which has always been the lot of poverty. But to be told, as is said of Sheffield, that "the paucity of our contributions may justly be accounted for by the sad spirit of violence and indulgence of lusts," &c., &c., is too much. If our money is our own, let us do what we like with it. To inquire what an income might be made if everybody would buy a thousand more pins a-day than they want, is a very good arithmetical question, but no reason for maintaining beggars to keep up a forced sale. Let missionaries get money by fair means, but do not stigmatize those who only look upon missions as harmless amusements, or as the display of goods in a shop they feel no inclination to enter.

*Speeches and Addresses, chiefly on the Subject of the British-American Union.* By the Hon. Thomas D'Arcy M'Ghee, M.R.I.A. (Chapman & Hall.)—Unless distinguished by very rare qualities of style and language, a collection of speeches is less attractive than a blue-book. Although the speeches in this volume are not more remarkable than the average of our good Parliamentary speeches, yet it has many claims on a reader's notice. By perusing it, a considerable amount of knowledge relating to the struggles of political parties in Canada will be acquired, and, as knowledge of this sort is possessed by few in this country, the volume may be recommended for general perusal.

*A General History of Music.* By Dr. Joseph Schlüter. From the German by Mrs. Robert Tubbs. (Richard Bentley.)—In the absence of the original, we cannot say anything as to the character of this translation. All people who have ears for fine sounds will find it very interesting. The author has treated his subject in the true scientific spirit; his object being to show how music is associated with our mental growth, and that the music of every age is the reflection of its predominating intellectual tendency.

Among cheap editions of well-known books, we may notice Dr. Doran's *Their Majesties' Servants* (William H. Allen & Co.); Mr. Lewin's *Her Majesty's Mails* (Sampson Low, Son, and Marston); and a complete edition of *Longfellow's Poetical Works* (George Routledge & Sons). The latter has the twofold merit of being very legibly printed and sold at a very low price.

*A Treatise on the Dynamics of a Particle.* By Messrs. Tait and Steele. Second Edition. (Macmillan & Co., 1865.)—The first edition of this treatise was published nearly ten years ago. The chapter on the Laws of Motion has been entirely re-written, and the book has the approbation of Mr. Todhunter and Mr. Stirling. The writer announces a forthcoming work by himself and Professor W. Thomson on "Natural Philosophy."

# PUBLICATIONS OF THE WEEK.

- ADVENTURES (The) of Mr. Verdant Green, an Oxford Freshman. By Cuthbert Bede, B.A. With numerous illustrations. Ninetieth Thousand. Cr. 8vo, cl. sd. *James Blackwood.* 3s.
- ÆSOP. Fables of Æsop and others. Translated into English, with instructive applications. By Samuel Croxall, D.D. 18mo, pp. 288. *Nimmo.* 1s. 6d.
- AIKSWORTH (W. H.). Spanish Match. 2nd Edition. 3 Vols. Post 8vo. *Chapman & Hall.* 31s. 6d.
- ANDREWS. Selections from the Sermons of Lancelot Andrews, sometime Lord Bishop of Winchester. With a Preface by the Venerable the Archdeacon of Surrey. Fcap. 8vo, pp. xxxii.—160. *Hatchard.* 3s.
- AUNT LOUISE'S London Toy Books. Nursery Rhymes. With Coloured Illustrations. 4to, sd. *Warne.* 1s.
- BANIM. The Bit o' Writin'. By the O'Hara Family. A New Edition, with Introduction and Notes. By Michael Banim, Esq. Post 8vo, bds., pp. ix.—371. *Duffy.* 2s.
- BIGG (William). Ten Day Tourist; or, Sniffs of the Mountain Breeze. Comprising Ten Days in North Wales (2nd Edition Enlarged); a Stroll Among the English Lakes; a Week in the Western Highlands; Ireland, in the South and West. Cr. 8vo, pp. 170. *Bennett.* 3s. 6d.
- BIBLE Text Books. Nos. 9 and 10. Light in Dark Places. How to be Saved. 64mo. *Hamilton.* Each, 6d.
- BLACK'S Guide to Hampshire. With Maps. New Edition. Fcap. 8vo. *Black.* 2s. 6d.
- BROOK (MRS. CAREY). Charity Helstone. A Tale. Post 8vo, pp. 363. *Seeleys.* 6s.
- BUNYAN (John). Pilgrim's Progress from this World to that which is to come. Delivered under the Similitude of a Dream. 18mo, pp. 312. *Nimmo.* 1s. 6d.
- BYRON (Lord). Childe Harold's Pilgrimage. With Memoir by W. Spalding. With Engravings. New Edition. Fcap. 8vo. *Griffin.* 3s. 6d.



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COPLAND (James, M.D., F.R.S.). Dictionary of Practical Medicine: comprising special Pathology, the Principles of Therapeutics, the Nature and Treatment of Diseases, Morbid Structures, and the Disorders especially incidental to Climates, to Races, to Sex, and to the Epochs of Life; and with an appendix of approved Formulae. The whole forming a Digest of Pathology and Therapeutics, abridged by the Author, assisted by James C. Copland, M.R.C.S., and M.S.A., and throughout brought down to the present state of Medical Science. 8vo, pp. xxi.—1,537. Longmans. 3s.

DINA; or, Familiar Faces. New Edition. Complete in One Volume. Cr. 8vo, pp. 611. Nimmo. 5s.

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GREGORY (Rev. J. G., M.A.). Earth's Eventide, and the Bright Dawn of the Eternal Day. 2nd Edition, Revised. Fcap. 8vo, pp. viii.—311. Moor (Ventnor). Virtue. 4s. 6d.

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MINUTES of the Wesleyan 122nd Annual Conference, begun in Birmingham, July, 1865. 12mo, bds. Wesleyan Conference Office. 1s. 4d.

MOODY (Rev. Clement, M.A.). Accidence of the New Eton Greek Grammar. 12mo, cl. sd., pp. 129. Longmans. 2s. 6d.

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O'SHEA (H.). Guide to Spain. With Map. Cr. 8vo, pp. cxxxvi.—538. Longmans. 15s.

PERCY (Thomas). Reliques of Ancient English Poetry; consisting of Old Heroic Ballads, Songs, and other Pieces of our Earlier Poets; together with some few of later date. Edited by Robert A. Wilmont. Illustrated. New Edition. Fcap. 8vo, pp. lxxvi.—610. Routledge. 6s.

ROOK'S GARDEN (The). Essays and Sketches. By Cuthbert Bede. Cr. 8vo, pp. 205. Low. 7s. 6d.

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WESLEY, the Mother of the. A Biography. By the Rev. John Kirk. With Portrait. 3rd Edition. Post 8vo, pp. xxii.—351. Book Society. 5s.

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## OBITUARY.

## JOHANN FRANZ ENCKE.

BY the death of Encke, which we briefly announced last week, the Berlin Observatory loses an able director, and the Royal Society its oldest foreign member. Encke was born on the 23rd of September, 1791, at Hamburg, where his father was a clergyman. He studied under the celebrated Gauss at Göttingen, and in the year 1813 he entered the Hanseatic Legion as an artilleryman. In 1815 he became lieutenant in the Prussian Artillery, and at the conclusion of the war was about to return to Göttingen; but, on the invitation of von Lindenau, at that time Director of the Observatory at Gotha, he accepted the post of assistant at that institution. Two years afterwards he became vice-director. Whilst at Gotha he received the Cotta prize, awarded to him on the judgment of Obbers and Gauss, his former master, for a dissertation on the visit of the comet of 1680. This paper, together with one on the determination of the sun's distance by the transits of Venus of 1761 and 1769, was published at Gotha, in two volumes, in 1822—4, forming his first separately-issued work. By far the most

important labours of Encke, however, and those which have rendered his name familiar even to persons not specially interested in science, are his investigations relating to comets of short periods. In 1819 he showed that the comet observed by Pons, at Marseilles, on the 26th of November, 1818, was the same as that previously seen by Mechain and Meissier in 1786, in the constellation Aquarius, by Miss Herschel in 1795, in the constellation Cygnus, by Pons in 1805. This comet revolves in an orbit of great eccentricity, inclined at an angle of about  $13^{\circ} 22'$  to the plane of the ecliptic. Encke stated that its period was about 3.3 years, and accordingly predicted its reappearance in 1822, adding at the same time that it would probably not be visible in Europe. It was observed by Runcker, at Sir Thomas Brisbane's observatory, in New South Wales, on the 3rd of June of the same year, and Encke's comet, as it has since been called, has kept its appointments with such punctuality, that it might almost be regarded as a permanent member of our system, were it not for the gradual diminution in the time of its revolution, and its consequent approach to the sun. Twelve years were spent in observations on this body at its successive reappearances; and in 1831 Encke published two papers "On the Comet of Pons"—in other words, that of Encke—in the *Astronomische Nachrichten*, giving the results of his work, and propounding a theory to account for this singular phenomenon, which had never been noticed in any of the celestial bodies previously discovered. He attributes this decrease in the period to the existence, in the space traversed by the comet, of an exceedingly rare medium, which retards the actual velocity, and allows the solar attraction to overcome to some extent the centrifugal force. Of the gradual diminution of the period there is no doubt, but the admission of Encke's theory involves such important considerations, that one may well pause before giving unrestricted adhesion to it. These two papers were translated by Professor Airy in 1832, and published, under the title of "Encke's Dissertation."

In 1825 Encke was appointed Perpetual Secretary of the Mathematical Section of the Berlin Academy, and was also elected Foreign Member of the Royal Society. About the same time he was called to take charge of the Berlin Observatory, as successor to the celebrated Bode, whom he succeeded, in 1830, as editor of the *Berliner Astronomischen Jahrbuch*. The erection of a new observatory in 1835, furnished with more powerful instruments, which was partly owing to a suggestion of Humboldt, gave Encke an enlarged sphere of labour.

The observations of Encke's comet, during its appearance in 1838, showed that a considerable error had previously existed in the mass assigned by Lagrange to the planet Mercury. The disturbing influence of the planet on the comet, when the times of their perihelion passages happen to be near to each other, is very considerable, and the amount of such perturbation furnishes a means of controlling the estimates of the planet's mass obtained by other methods. The results of these observations appeared in 1841 in the *Monatsbericht* of the Berlin Academy, in a paper, "Über die Masse des Merkurs."

Amongst Professor Encke's other papers, we must mention a valuable series "On a New Method of Computing the Perturbations of Planets," a translation of which, by Professor Airy, may be found in *The Nautical Almanack* for 1856. "It is not improbable," says the translator, "that Professor Encke's method may ultimately be found more convenient than the others which have been in some measure deduced from it." He was also the author of a dissertation "De Formulæ Dioptriciæ," published in 1845, and also of papers "On the Relation of Astronomy to the other Sciences," 1846, and "On the Magnetic Observatory at Berlin."

DR. FRANZ AHN, the inventor of a new system of teaching foreign living languages, died on the 21st of last month, at Neuss-am-Rhein, where, since 1863, he has held the appointment of Gymnasialoberlehrer. On the 27th ult. Friedrich Emanuel von Hurter, the Roman Catholic historian, died at Gratz; and at Louvain, Professor Arendt, the antiquary and historian.

On Saturday, the 9th inst., at his residence, St. John's Lodge, near Aylesbury, died Admiral WILLIAM HENRY SMYTH, at one time an active and prominent member of the scientific life of the metropolis. He has acted as president of the Astronomical Society, founder, and subsequently president, of the Geographical Society, vice-president, foreign secretary, and for many years

member of the council of the Royal Society, director of the Society of Antiquaries, visitor of Greenwich Observatory, and one of the founders of the United Service Institution. He was born at Westminster, on the 21st of January, 1788, entered the Navy at an early age, and served with considerable distinction in nearly all parts of the world during the war which terminated in 1815. Capt. Smyth in 1822 received from Mehemet Ali an offer of the celebrated "Cleopatra's Needle" as a present for George IV., but no opportunity of attempting its embarkation ever occurred. He retired from the Navy in 1826, and gave himself up thenceforward to scientific pursuits. He constructed a great number of admirable charts of various portions of the Mediterranean Sea. Retiring in 1825 from marine life, he entered upon another phase in his scientific career, and commenced in his observatory at Bedford that laborious and accurate series of astronomical observations which resulted in the publication, in 1844, of the "Cycle of Celestial Objects," including the "Bedford Catalogue," a work universally acknowledged as one of the best handbooks of practical astronomy extant. We subjoin a list of some of the more important of his numerous works: "A Descriptive Memoir of the Island of Sicily," 1824; "Sketch of the Present State of the Island of Sardinia," 1828; "The Life and Services of Capt. Philip Beaver," 1829; "An Account of a Private Observatory Recently Erected at Bedford," and "An Account of an Ancient Bath in the Island of Lipari," 1830; "Descriptive Catalogue of a Cabinet of Roman Imperial Large Brass Medals," 1834; "Observations on Halley's Comet," 1836; "Nautical Observations on the Port and Maritime Vicinity of Cardiff," 1840; "A Cycle of Celestial Objects," 2 vols., 1844, a production which obtained for him the gold Newtonian medal of the Astronomical Society; "Ædes Hartwellianæ, or Notices of the Manor and Mansion of Hartwell," 1851; "The Mediterranean, a Memoir Physical, Historical, and Nautical," 1854; "Descriptive Catalogue of a Cabinet of Roman Family Coins," 1856; "Speculum Hartwellianum," 1860; "Addenda to the Ædes Hartwellianæ," 1864; "Sidereal Chromatics," 1864. He also formed the United Service Museum.

## CORRESPONDENCE.

In the Rev. S. Smith's letter of last week, "On the Sepulchre of Christ," the word "round" was by some error inserted in the passage "and seized half the vestibule of the [round] Church of Constantine." Also, in the passage "till the time of Eutychius, in 958 A.D.," the date should have been 937 A.D.

## "THE CATTLE PLAGUE AND VIRGIL."

To the Editor of THE READER.

Sir,—My letter under the above heading, in THE READER of August 19, has now met with a contemptuous attack. Permit me, as put on my defence, to crave the indulgence of what will be, I fear, a goodly portion of your space.

In the first place, I wish to correct the misconception of what I said about Professor Conington's Commentary. From my assailant's language anyone would infer that I had taken that distinguished scholar to task, and, it might be supposed, in a tone quite out of keeping with the respect I feel for him. I am anxious that such a notion should not get into print without my contradiction. Here is what I wrote in full: "Of this disease Professor Conington says, 'We know nothing of the epidemic described.' I venture to think that these words will not appear in any future edition of his commentary." *Voilà tout!* It will be observed that I do not raise any objection to the comment; I merely "venture to think that," after the "cattle plague" of 1865, he will no longer express himself in precisely the same language.

And now to the point in question. What I said was this: "Reading the account of the symptoms of the cattle plague given by the Vienna correspondent of *The Times*, and in almost the same words by our home authorities, I have been struck with their remarkable coincidence with those of that plague among the brutes which is so powerfully portrayed at the close of the Third Book of Virgil's 'Georgics.'" I then cited passages, alternately, from the Roman poet of the age of Augustus, and from the reporter of what is happening now-a-days in the Austrian empire.

My assailant seems to think that the locality of Virgil's pestilence forbids, at the outset, the institution of any comparison between it and that described by the Austrian correspondent of *The Times*. I cannot but think that a con-



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sideration of locality tells strongly in my favour. By-the-bye, my assailant does not state it accurately. It is not correct to represent it as "the tract of land between the Carnic Alps and the mouth of the river Timavus, in Venetia" (the Timavus is a very short stream that falls into the head of the Adriatic between Trieste and Aquileia), still less so to call it "the Timavian district." Any of your readers who, if necessary, turns to Spruner's "Atlas Antiquus" (Tab. xi.) will smile at the comprehension of the range of Virgil's great pestilence under such an expression. What is the poetical language by which the bard of Mantua describes the region in which traces of it might even in his days be seen?

— "Ærias Alpes et Norica . . .  
Castella in tumulis et Iapydis arva Timavi."

In other words, Noricum and the southern outskirts (Herodotus would have said *ὑπωπείαι*) of the Carnic Alps. I am thankful to my assailant for drawing attention to the locality—

"Via prima salutis  
. . . Graia ducetur ab urbe."

Let your readers, if necessary, look out Noricum in Spruner (Tab. viii.); or, if they would see the modern map side by side with the ancient, I dare say our old friend Arrowsmith's "Comparative Atlas" will present the same aspect. They will find Noricum to be a large tract of country extending on the west to the Inn, on the north to the Danube, while on the east it includes Pettau, and almost takes in Vienna. And let them at the same time read the following, which, in the letter of the Vienna correspondent of *The Times*, precedes that account of the symptoms of "the cattle plague" from which I quoted in illustration of Virgil. He writes thus: "Some time ago—I think it was at the beginning of May—a great many oxen were purchased in Moravia, Bohemia, and Silesia, and sent by rail to Hamburg. When the oxen were bought, the sellers were told that they were intended for the London market. Now the murrain has long been prevalent in Austria, and, therefore, it is not unlikely that the above-mentioned cattle introduced the malady into England. Rather more than a year ago the cattle plague broke out in this city [Vienna] and its environs, and shortly before it was raging in various parts of Hungary and Galicia; it was then that the Bavarian Government prohibited the import of cattle from Austria. Though the 'lungen-seuche,' which is generally accompanied by typhoid symptoms, is a very dangerous malady and highly contagious, the Lower Austrian authorities generally manage to confine it within narrow limits. In Galicia and Hungary, where the sanitary authorities are much less strict, the infection sometimes spreads from one end of the country to the other."

I select the following from Professor Simond's address to the Norfolk farmers on the 9th August: "They must recollect that this was a disease not belonging to England. It no more belonged to us than the Asiatic cholera, the yellow fever, or any other of those diseases, belonged to us. It was a disease specially belonging to Russia, Austria, and the Danubian Provinces—Bessarabia and the whole of the countries lying eastward. The countries on the west side of the line were strangers to the disease, save and except upon its introduction." Compare with this the very recent report of two veterinary surgeons, sent over to this country from Nordenhamm (see *The Times*, Sept. 2, p. 6). Their account of the symptoms, by-the-bye, may, as well as others, serve to illustrate Virgil; and among "the principal appearances of disease in the internal organs," they mention "thin, tar-like, slightly coagulable blood," corresponding with the "jejunâ sariæ" ("the thin gore," as Professor Conington renders it) which falls from the sacrificial victim (v. 493). "From all these symptoms in living diseased beasts, and from the data arrived at by dissection of animals slaughtered on account of being infected, it is apparent," say they, "that the murrain raging in and around London is a typhoid disease, having very great resemblance to the cattle plague (rinderpest) prevalent in Russia." Again, what did Dr. Budd say at Leamington—to quote from the abstract of his paper, which is given in THE READER just before my assailant's letter? "The disease is," says he, "always on the Steppes. . . . It is always breaking into some part of Austria. The Prussian cordon generally manages to keep it back; but in 1811 it came in with the Russian contingent, and gave the French the additional mortification of seeing their cattle die off, as well as having an enemy in their capital. During the Crimean War it came down to

Sebastopol with the Russian commissariat, swept through various parts of Turkey, and did fearful mischief in Egypt, where it had never been before, at least since the days of Moses." And he afterwards speaks of it as "endemic in Siberia."

A long account of this Russian, or rather Siberian, plague appeared in *The Times* of August 18. It was sent by the Berlin correspondent, and was an "extract," in the Berlin official *Annalen der Landwirthschaft*, from a report drawn up by two veterinary surgeons, who had been sent to Russia by the Prussian Government in September, 1864. It appears that it can be traced back at least as far as "the beginning of the eighteenth century," when it "occasioned processions through the streets and prayers in the churches. . . . Since 1740, when Gmelin discovered the first traces of the malady on the banks of the river Irtysh, where it had been prevalent long before, it has been a permanent scourge of Western Siberia, breaking out every year in the hot season, and chiefly killing men and horses. Sometimes more, sometimes less violent, it gradually spread beyond its original home, following in its course the rivers Irtysh and Tobol, as well as their tributaries, and affecting alike high lands and low lands, sand and swamp, and, indeed, every sort of soil and geographical situation. All domestic animals, without distinction, were liable to be attacked by it; but its most numerous victims were horses and men. . . . In 1798, it reached the Caspian Sea and Ukraine, penetrating at the same time as far as the White Sea, in the north, and even showing itself in Lithuania and the Russian shores of the Baltic. . . . In the last three years it advanced again in a westerly direction, and, infecting all the country from Astracan to Lithuania and Vibetsk, reached St. Petersburg, Olonetz, and the shores of the White Sea. Its principal victims on this latter occasion were horses; next in point of numbers came cattle; then sheep, swine, and, as the last in the scale of suffering, men. In some places, all domestic animals were liable to be attacked; in others, horses and cattle only." Statistics follow. The correspondent of *The Times* supplements the two columns and a-half with the statement that "the same disease has broken out again" this year, "and, infesting chiefly the north-western provinces, proved even more fatal to men and animals than in the year before."

I trust, then, I have disposed of my assailant's triumphant talk of the "cattle plague" as merely a "disease amongst our horned stock." Where is the force of his objection to my comparison of the "dry, hollow, spasmodic cough" of the cattle (as mentioned by the Austrian correspondent of *The Times*) with the "tussis anhela" of the swine (as described by the poet-painter of the plague in Noricum and its neighbourhood)? I am told that the symptoms I draw attention to as being mentioned by the poet in identical terms with those of the matter-of-fact writer—this is not disputed—"belong, with one unimportant exception, not to the cow, but to the horse." What of that, when in the report of the Siberian plague—mind, of the same genus, to say the least, as that of the Austrian empire and the other local diseases—they are attributed (as may be seen) to all the suffering animals, and, indeed, as it happens, to the horse expressly? May not that traditionary plague of Noricum and its neighbourhood, which served as a string for the Mantuan poet's pearls, have been a wave of the ancient Asiatic pestilence, whose surges have been ebbing and flowing we know not how long?

But my assailant writes: "Let us look at the facts. Virgil's plague attacked the whole of the brute creation—

Et genus omne naci pecudum dedit, omne ferarum,  
Corruptique lacus, infecit pabula tabo.

Horses, pigs, oxen, sheep, deer, wolves, and dogs, were all sufferers from the dreadful pestilence; nor did the birds escape, but were suddenly struck down while flying in mid-air—

Ipsis est æer avibus non æquus, et ille  
Præcipites altâ vitam sub nube relinquunt.

Nay, the plague even extended to the scaly inhabitants of the deep sea, and the shore was covered with the dead fish; the poor seals took themselves to the rivers, while vipers and water-snakes erected their scales in astonishment (541-545)."

No, no! I feel sure that, on reflection, my critic will not insist on our reading Virgil so literalistically, and call this "looking at the facts" (!). Indeed, he is inconsistent—he does not do himself justice. Almost in the same breath he speaks of "the highly-wrought poetical description which Virgil has given, in language

which he has frequently borrowed from Lucretius;" and I may turn against him his own weapon, as used here: "He [Virgil] might have heard some few stories concerning the dire contagion, which he has embellished according to the taste of his poetical mind. . . . Our sources of information must be sought for in the writings, not of poets, but of matter-of-fact prose authors." Of course. Did not I, all along, distinguish the poet from "the matter-of-fact writer?" Are we to suppose that a voracious contemporary chronicler would have recorded for us that seals were found up in the Austrian rivers, or that he had witnessed, to adopt Milton's grand expression, "the scaly horror" of water-snakes "down in" the "cattle plague?" Are we to believe that the picture of the birds falling down from the sky is anything more than an effect of the poet's imagination? (though, by-the-bye, I may mention, as an amusing coincidence, that I am told a strange disease among the pheasants has appeared in my neighbourhood). I wonder we are not bidden to read sober history in the rage of the pale-faced Fury, Tisiphoné—in her bursting into the light of day from the cavernous gloom of the nether world—in her driving before her the spirits of Diseases and Terror—and in her rearing higher and higher her head, with open, ravenous mouth. In fine, are we to expect the exactness and bareness of a nineteenth-century "vet." in a great ancient poet who comes to his beautiful work with a mind steeped in the myths and the fancies of ages immemorial? Are we to look for the same treatment of such a subject from Virgil that we do, naturally enough, from Professor Gamgee?—I remain, Sir, your obedient servant,  
AN OXFORD M.A.  
September 6.

## THE WORD "RELIABLE."

To the Editor of THE READER.

Sir,—I have only just observed your correspondent "F.'s" challenge to me to prove the charge which I make against the word *reliable*.

Without aspiring to the character or temperament of a bull, or, at all events, not seeing a red rag in every word of which the original title-deed may be doubtful, acquiescing in such an established usage as it is plainly hopeless that I or anyone else can now hope to change, I yet hold it matter of conscience to watch over the well of English, and both by precept and example protest against words which are not according to analogy, nor established by such a prescription as it would be idle to contend against, nor so peculiarly charged with meaning that we cannot dispense with them.

I am not, therefore, moved by your correspondent's instances. I accept *humiliating* and *civilization*, and feel that *unaccountable* is too well established to be quarrelled with now-a-days. At the same time, its case is by no means originally so bad as that of *reliable*. The verb *account*, in one at least of its earlier meanings, is a transitive one, and as such would naturally give birth to an adjective *accountable*, not in need of any accompanying preposition. Such adjective, in its negative form, might thus come to be used in connexion with a secondary non-transitive sense of the verb, demanding a preposition. This is not right, but it cannot now be helped. The growth of a language, like that of a kingdom or of institutions, is marked by wrong things, which cannot be challenged after a certain time; but it does not follow that similar wrong things are to be done without censure.

As to *unsearchable*, there is no case against it. The verb *to search* is, properly, a transitive one. Has "F." forgotten the words "Search the Scriptures?"

The case against *reliable* is as follows: It is formed ungrammatically. It is quite modern, appearing first, I think, in the newspapers about nine years ago,\* during the Crimean War. I am aware of no good writer but Mr. Lowndes having used it; and, finally, it is quite unnecessary. Your correspondent gives us the word *trustworthy*, which answers every purpose that can be served by *reliable*, and is so good a word as to want no complement that I can see.

Will your correspondent's ear and English associations not only reconcile him to *reliable*, but prepare him to accept the family which the word may and probably will beget—*unreliable*, *unreliability*; together with the couples *defective reliability*, *slight unreliability*, and such like?—Your obedient servant,  
F. G.—N.

\* Since writing the above, I find *reliable*, *reliableness*, and *reliability* in "Webster's Dictionary of the English Language," Ed. 1856. Whether they occur in earlier editions of that work I know not. They are justified by no authorities.



16 SEPTEMBER, 1865.

## ARE THE "PASTON LETTERS" AUTHENTIC?

To the Editor of THE READER.

Sir,—The question propounded by Mr. Herman Merivale in the last number of the *Fortnightly Review* has made no small stir among bibliopoles and lovers of historical antiquity. It is a question well worth sifting, and there can be little doubt that champions of Sir John Fenn will arise to combat the position taken by the assailant. Admitting the cogency of his main arguments, I think it easy to silence doubt upon two points put forward in the paper. Mr. Merivale doubts the genuineness of the "articles of the Earl of Warwick," and says that the word "supporte" as it occurs in the articles, is very good modern English, but was not likely to have been used in that day. Now in the "Rolls of Parliament," Vol. v., p. 433, and in the "Acts of the Privy Council, edited by Sir Harris Nicolas," Vol. iv., page 132, this very document "Propositions submitted to the Council by the Earl of Warwick, the King's tutor," is printed verbatim, and contains the word "supporte" just as the Paston volume has it. Sir Harris Nicolas refers for the original to "Bibl. Cotton. Titus E. v. f. 315, contemporary copy. The catalogue of the Cottonian MSS. does not, indeed, give any account of the paper, having (p. 568) no other description of "Titus E. v." than "Copies of the Rolls of Parliament from 1st to 16th of Henry VI."

Sir Harris Nicolas must be added to the list of scholars who have believed in the Paston Letters; for in giving his references for the authenticity of the document, he makes use of these words: "Another copy of these propositions is printed in the Paston Letters (Vol. iii., p. 2). There are no variations between the two copies." That looks like undoubting faith!

There is another authority for the use of the word "supporte," in the modern sense, as early as 1428. In a volume of Letters that has hardly received the attention it merits, published by the Camden Society in 1863—I mean the "Letters of Queen Margaret of Anjou, Bishop Beekington, and Others," edited by Mr. Cecil Monro—the following phrase occurs in a letter from Richard Bokeland: "Hit fitteth my lorde, to supporte, socour, and remedy his poure servants" (Anjou Letters, p. 43). The same word is used as a noun at page 108 of the same volume, in a letter from the Queen to the Duke of Exeter, and the participle "supporting" occurs at pages 115 and 152. Two other words, *case* and *place*, are branded with suspicion, as being too modern in their application for writings of the fifteenth century. I find in a letter of the King to Bishop Beekington (Anjou Letters, p. 58) the phrase, "yf the cas shulde happen." At page 67 there are "in semblable caas," and "in suche cas;" at page 127 "as the cas requireth," and at page 149 "in cas that ye may not attende." The following are, I confess, unexpected *trouvailles*: "He and Lord Moleyns visited my lady your wife at your place" (p. 80), and "I rode from Tawnton unto his place" (p. 82). Some of our colloquialisms are more ancient than we dream of. These Letters, too, contain evidence of the reality of several of the persons mentioned in the Paston Collection. Such are Wydvile, Lowis John, and others. If the reader will turn, also, to the "Acta Cancellaria," published by the same editor in 1847, he will find at pp. 471–476 two documents that bear upon this subject. The first is the petition of Sir William Paston, Clement Paston, and Edward Paston to Lord Chancellor Bromley, in 1579, requesting that two papers which they present as of importance to their family, being signed by King Edward IV., may be verified by comparison with the records in the Tower signed by that King. The second is the report of the officials verifying the signature, and the decision of the Court authenticating them. The notes and references in Mr. Monro's first-named volume will be found generally instructive on the subject under debate. He points to the first writ, appointing Warwick tutor to the King, and issued in 1428, four years before the "Articles" given by Fenn. This writ, or Mandatory Letter, is addressed to the Chancellor in the name of the King, then six years old; and it is rather odd to read the poor boy's condemnation of himself to a flogging in these words: "The said Earl shall have authority and power to chastise the King after his good advice and discretion when the King trespasseth or doth amiss on that one behalf, or strangeth him to lerne, or to do that the said Earl shall bidden him on the other behalf." Indemnity is then given to Warwick for taking so great a liberty with the Royal person, should need arise. It would seem that

his Majesty was a naughty boy, and did not take his whippings meekly, for the "Articles" now brought in doubt are nothing else than Warwick's request, in 1432, for increased authority over the King, and a more solemn indemnity and protection from the Privy Council, for laying hands on his lawful sovereign.

Perhaps, some of your readers will like to be reminded that this Earl of Warwick was Richard Beauchamp, who died at Rouen in 1439, and not Richard Nevil, who figured a few years later in English history as the King-maker.—Yours,

R. H.

September 13, 1865.

## DIDACTIC POETRY.\*

ALL our readers are familiar with Ma-caulay's famous comparison of Cowper and Alfieri. But as far as regards their lives, and the circumstances under which they composed their poems, a much closer one might have been discovered between Cowper and Lucretius. The story of his madness has been doubted by the able editor of the latter, Mr. Munro. "It would be strange," says Professor Sellar, speaking of the "De Rerum Natura," "if so remarkable a poem had been written in the lucid intervals of insanity!" Yet this was the case with poems quite as didactic and as long sustained, with "Table-talk," "Truth," &c., "The Task," and, if we may call it a poem, the translation of Homer. The first and most frightful form of his calamity overwhelmed Cowper before he had penned a line. His life was passed in alternate intervals of madness and lucidity. His recoveries were slow, but his relapses wonderfully sudden. Yet the poetic power seems never to have been injured, and flashed out only the last moment before it became too clear that no kindness, occupation, or amusement could alleviate the deadly self-torturing gloom which settled heavily upon his latest years. Lucretius died by his own hand, and it was not Cowper's own fault that he did not also succeed in completing his self-destruction. The cause of disease was in both cases very much the same; for if the Roman, with the superstition of his age and country, lost the full use of his mind from the effects of a love-potion, it was the loss of his mistress, acting in conjunction with other similar misfortunes, which overbalanced the delicately-set brain and nerves of Cowper. If we knew more of the life of Lucretius, there is every reason to suppose many more points of resemblance would be made out. Both were deeply impressed with the nothingness of human life, and with the un pitying power of nature or of destiny. Both must have been fond of solitude. Both were poor; and if Mr. Munro be correct in his ingenious idea, that when Cicero is said "to have patronized the efforts of poets," Lucretius is especially understood, both—and both were poor gentlemen—must have received assistance from great and self-made lawyers and statesmen. The style of both may fairly be described by the same epithets as "most elegant, most pure, most weighty, and most ornate." Neither have ever been, or are ever likely to be, popular poets; and yet both have furnished far more than a proportionate number of favourite quotations; and if Virgil, Horace, and Ovid carefully studied, and have carefully imitated Lucretius, there are few genuine readers of poetry who do not know what obligations Cowper has conferred upon Wordsworth and upon Byron. In many cir-

\* The Poetical Works of William Cowper. By John Bruce. 3 Vols. (Bell & Daldy.)

cumstances of his life Cowper was a curious counterpart to his great contemporary Goethe. Like him, he very early encumbered himself with a youthful *protégé*, whom he had considerable difficulty in disposing of. Like him, also, he was, though we may believe in a much more innocent way, perplexed with female friendships. And it is remarkable that like Goethe he found a Friderica in his Theodora, whom his friends would not allow him to marry, and who remained through life without any other attachment. The precise relationship which subsisted till the death of the lady between Cowper and Mrs. Unwin is almost impossible to understand. There was no reason, as far as the world could judge, why they should not have married; and Mrs. Unwin could exhibit natural jealousy enough when Lady Austin tried to inveigle her companion into a declaration. There was disparity, certainly, in point of age, and that on the wrong side, for Cowper was but thirty-six and Mrs. Unwin was forty-three when she settled down with him at Olney in the same house, after the death of her husband. Accustomed, as the mistress of a household comprising several young men, to the position of a matron exercising control and superintendence, she appears not to have seen anything peculiar in their respective positions. But after forming by themselves for six years but one household, after being accustomed to have a common purse, and scarcely ever to be apart, it was inevitable that their attachment should become of a more tender kind. But then his malady revived without any apparent cause, and for six years more the miseries suffered by the patient must have been incalculable. He walked, more literally than any other man ever did, "in the valley of the shadow of death;" for he was mentally agonized by doubts, fears, and terrors, which deprived him alike of peace on earth and hope of heaven. Whether his disorder was owing to religion, or, as all would in that case call it, an indulgence in superstition, seems doubtful; nor could such a question be decided without a much greater knowledge of the details of his dual life, as he called it, than we possess, and which it would be vain to expect from any other source than the letters of Lady Hesketh to Theodora, which have mysteriously disappeared. But there is no doubt that religion formed his greatest solace in affliction; and it is, perhaps, unfortunate that Cowper never entered the communion of Rome, in the authority of which he would have found relief from many of his doubts, and which would have made good use of his monkish habits and his passion for performing many of the duties, without incurring the more serious obligations, of the priesthood.

If the pair had any serious thought of marriage before this epoch in Cowper's life, it must have been thereupon abandoned for ever. Mrs. Unwin was again in her natural position of matron and nurse, and her principal attention on his recovery was occupied in devising means, though, as we are aware, with but partial success, to ward off the pitiless and, indeed, invincible enemy. Those who consider religion and poetry to be only the outward manifestations of some mysterious disease will always point to Cowper in illustration. And yet these two powers seem to have



combated for the possession of his mind rather than to have united in overthrowing it. Poetry seems with him to have had rather a curative influence. To rule over the poetic faculty, to observe its ebbs and flows, to make it subservient to any fixed purpose, he never attained. But he knew how to employ it as a medicine, and, by satirizing others, to feel conscious that he was not quite the pre-eminent wretch or the unpardonable sinner his superstition would sometimes have persuaded him. It is justly observed by Mr. Bruce, that the biography of Cowper is cumulative. And there are many letters in existence which, he tells us, throw great light on the way by which the mind of Cowper gradually passed from healthy activity to morbid delusion. These cannot be published too soon. The psychology of a creative intellect gives nearer glimpses than anything else can do into the manufacture of thought. We should like to catch the echo of the voice which calls the poet, and which none but he can hear. We should like to trace the wavings of the hand which beckons him away to the kingdoms of imagination, and which can be seen by none but him.

We suspect the attachment to a person so much older than himself had much to do with it. At a certain period of life, if affection is felt for those only who are already on the path of decay, the effect must naturally be very depressing. Cowper's earlier disposition to take up youthful *protégés* seems never to have returned to him. Perhaps it was crushed by the rude but necessary action of his friends. They threatened, nor can we blame them, to withdraw the pension on which he lived if he continued to spend so large a portion in the indulgence of what they considered a mere weakness. But it was not altogether this with him. Nothing strengthens a weak nature so much as the idea of being necessary to the protection of others. Cowper had stumbled on a method by which, had his means been more ample, he might, perhaps, have preserved the due balance of his faculties. It could not be expected that this view would ever have struck those about him. The matronly care of Mrs. Unwin seemed the happiest accident that could have occurred. When in her turn she became so infirm that her position towards Cowper was reversed, and he was compelled to assume the natural place of protector, the effect was decidedly beneficial to himself. With her death the last cause for exertion vanished; and with an expiring flash of utter despair he at once described and became the "Castaway."

Cowper, like many melancholy persons, had a deep vein of comic feeling. One evening the story of "John Gilpin" was told him by Lady Austen. This story must have had some foundation; but all the researches of Mr. Bruce have been unable to trace it further back than Lady Austen's nursery. Perhaps by the time the volume of correspondence he promises us is ready, some of our antiquarian readers may assist him. He was kept awake by the recollection, and excited by it to convulsive laughter. It followed that he passed the night in turning the story into a ballad. There is a strong resemblance between the circumstances of this composition and that of another, much grander, but not better known—we mean the ode on St. Cecilia's Day. The writing of ballads was fortunately not made a

practice by Cowper. As a means of inducing a reaction from his melancholy, "John Gilpin" served the purpose well enough. But the mere fact of nights "spent in convulsive laughter" would soon have produced the opposite spectacle of days passed in unutterable woe. Fortunately, Lady Austen saw the dangers of attempting too violent a cure. She appears to have been the first to understand that the proper remedy for Cowper's mind was patient, calm, and, to some extent, compulsory occupation. She laid her sweet commands upon him, and the result was the accomplishment of his "Task."

"The Task" is, beyond everything else, a thoroughly English poem. The scenery, the sentiments, the allusions, the theology, are all thoroughly national. Even our then recent triumphs in India are referred to with anything but approbation. And France only acts as a foil, or introduces a prophecy of the fall of the Bastille, which the poet lived to see fulfilled while still in the possession of his faculties. It will bear to some extent a comparison with the great epic of England. For though it has scarce any plan, and no unity of purpose, even *Paradise Lost* fails to interest after the great catastrophe has been described. Its domestic scenes, though different in character, are quite equal to those of Milton: and if it wants the splendid debates of the lost spirits, and the agonies of their leader, it is not deformed by the incomprehensible jargon of Puritanical theology, or the bad taste of the battle scenes between the creature and the Creator. Perhaps the most characteristic contrast is displayed in Cowper's great dislike to everything that is classical. It seems difficult to account for this feeling. "Westminster was, on the whole, a pleasant place to him. He was on good terms both with masters and fellow-pupils. Vinney Bourne, the usher of Cowper's form, was popular not only with Cowper, but throughout the school. Nor is there any reason to suppose that Cowper's merit and scholarship were not adequately acknowledged by the heads of the school." Compare this with Shelley's early misfortunes, and with Byron, who made no pretence whatever to what is called scholarship. In "The Task," the detestation for pagan associations is almost ludicrous. But the horror of all the efforts of science is greater still. Geology, just rising into notice, was particularly obnoxious to Cowper. And yet, though written nearly one hundred years ago, how many still echo the lines:—

Some drill and bore  
The solid earth, and from the strata there  
Extract a register, by which we learn  
That He who made it, and revealed its date  
To Moses, was mistaken in its age.

We recommend "The Task" as a perfect arsenal of epigrammatic mottoes to those who wish to put in their protest against scientific thought. For example:—

God never meant that man should scale the heavens

By strides of human wisdom;

And—

In vain they push inquiry to the birth  
And spring-time of the world; ask, Whence  
is man?

Why formed at all? And wherefore as he is?

But Cowper is the last of our greater poets who was content, if indeed he really was content, with the popular theology. The sympathies of those who succeeded

have either been with that tone of thought which dislikes associating itself with any dogmas at all, or they have felt that schemes of theology are but transitory, and that so far from a poet who is deeply imbued with them writing for all time, he is more than any other enthusiast guilty of sacrificing everything to the present. The character of religious poetry is proverbial. We regret the loss of the poems of Empedocles and others, but not on account of their merit. Milton thought he was choosing a subject which, by its very nature, must endure as long as the world. But modern science has repudiated his Adam as the universal ancestor; Russian baths have rendered his torments of passing from burning heat to icy cold simply ludicrous. The Trinitarian controversy has died out. The art of eloquence has given place to the practice of business. We look upon the fallen angels as idle boasters, and have but small sympathy with never-ending struggles, if they must always terminate unsuccessfully. Few study the characters of Milton's diabolical parliament. Those who do, will, we are convinced, prefer Belial to Satan, and wonder how he could have been deluded so as to deprive heaven of his fair presence. They will hope he may make hell comfortable, and console his leader when he returns from his bootless enterprise. Milton had seen rebellion triumphant. He knew what it was to sit in the inner councils of a successful subject. He had helped to scale what were once looked upon as the inaccessible battlements of an earthly Olympus. He had forged new engines of popular rights against an ancient hierarchy. Hence he is at home in the Satanic army. And hence, without any consciousness on his part—for here his theology intervened—the triumph of the Messiah becomes in his hands a description of mere brute and irresistible force. The active interest of his life and his poem both terminate with the restoration of a lawful King.

Theology can no more be made the staple of a modern poem than the Pagan pantheon. For supernatural machinery poets must depend upon dim allusions to an overruling Power, or the inexorable laws of nature. He who aspires to be a moral teacher can only succeed by showing men exactly what they are, and leaving them to draw their own conclusions. We do not want to be entrapped into Arianism, Calvinism, or Freethinking. Imagination is one thing and reason another: and though poets have more than ordinary licence, they cannot hope to command their age until they have learnt to obey it.

#### MISCELLANEA.

MR. EDWARD G. FLIGHT, of Bridport, appeals to us to establish his right to the authorship of "The true Legend of St. Dunstan and the Devil; showing how the Horse Shoe came to be a charm against Witchcraft," a ballad published some years ago. It appears that the writer of the article on "Holiday Makers," in *The Times* of last Saturday, has mistaken the poem for one of the Ingoldsby Legends. However flattering to Mr. Flight the imputation may be, he is naturally anxious to have his own again. As a matter of literary police we publish this correction of the Press.

THE authorities of the Foreign-office have printed a handsome and useful catalogue of the printed books in the library there. The arrangement of it is not one that could be approved, if the books were intended for the use of a large number of persons, for in that case, to facilitate quickness of reference is the object of the



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cataloguer, and an alphabetical order of the titles under the names of the authors is the most convenient. In the library of a public office, where affairs are transacted with great deliberation, and the most important matter is to be certain that your books are safe in their places, it is perhaps best to register the books as they stand on the shelves under the four simple heads of folios, quartos, octavos, and duodecimos. Of course, such a catalogue by itself would be nearly useless to every one but to the librarian (whose stock-book it would be), and the cost of printing would be thrown away. So great a reproach is obviated by a copious index of countries and subjects, nearly 300 pages long, followed by an index of names that covers twenty-five pages of three columns each. Thus reference is readily made to an author or to a subject with very little trouble. It is difficult to see the principle that has ruled in making out the lists that appear under certain headings. Under "Europe," for instance, stand three pages of titles which are neither in alphabetical order of subjects or of names of authors, nor in strict chronological order. A subdivision into the topics treated of would have rendered this portion of the work more intelligible and useful. The heading "Great Britain" proves this, subdivided as it is into many subjects alphabetically arranged. We do not know how the Foreign-office obtains books for its library, whether by purchase or by gift, and therefore only hint surprise at omissions revealed in a very cursory glance at the catalogue. Mr. Carlyle's "History of the French Revolution" may have been omitted because the writer denounces diplomacy so often and so fiercely, but no such reason exists for the exclusion of the sober, useful History of England under George III. by Mr. Massey. The Cromwell Correspondence and Mr. Froude's History are both mentioned in the catalogue without the last volume. It is, however, a well-compiled list of a considerable collection of books, giving about 7,000 separate titles, which, at the rate of four volumes a set, will make a large library of 28,000 volumes.

In the old churchyard at Highgate, which stands in the centre of the village, at present all is confusion, for a new church is to be built, and the dead are being moved to make room for the necessary operations. Among the dead in that ground were buried Samuel Taylor Coleridge, and his nephew, Henry Nelson Coleridge, whose remains lie just opposite the iron gate which faces the road. It is to be hoped that the spot to which the bones of those memorable men may be removed will be marked and known. Few poets ever had such claims on the respect and affection of the clergy as Coleridge.

No one can pretend to understand in their full bearings the rise, progress, decline, and fall of the Confederate States of North America without a careful study of President Lincoln's speeches and State papers. These have just been most admirably edited by Mr. Henry J. Raymond, and published at New York, under the title of "The Life, Public Services, and State Papers of Abraham Lincoln, Sixteenth President of the United States."

THE celebrated pianist Liszt, now an Abbé, has returned to Buda from an excursion to Szegszard, and will shortly go to France, *via* Venice. He is said to be composing a new oratorio, entitled "St. Etienne," for the coronation of the Emperor of Austria as King of Hungary.

M. AUGIER's new novel will be published at Paris early in November.

THE Prince of Wales has given two scholarships, to be competed for at the Royal School of Mines, Jermyn Street, and several others have also been established.

At Kettering, in Northamptonshire, the heat, as registered by one of Negretti and Zambra's thermometers in the shade, was, on Wednesday, the 6th instant, 80°; on Thursday, the 7th, 81°; and on Friday, the 8th, 85°. According to Lowe's tests, there was an entire absence of ozone, the wind being variable from W.S.W. to S. and S.E.

It is important to mariners to note that Capt. Cathorn, of the ship P. M. Miller, of Nova Scotia, who arrived at Falmouth on the 6th inst., from Rangoon, while crossing the Gulf of Martaban, distinctly saw a rock of some dimensions, which he immediately laid down as in long. 23.40 E., and lat. 11 N. He reported that, while this rock is mentioned correctly as to position in the Admiralty chart of the Indian Ocean (eastern sheet, from Cape Comorin to Australia), the book of directions not only omits it altogether, but

says, "No existing dangers here"—an error which should be immediately corrected.

ACCORDING to a letter in *The Times* of Monday last, signed by Professor Roscoe, the story of the supposed decomposition of oxygen, said to have been made by Professor Schoenbein, was simply a *canard* sent to *The Chymical News* some few weeks ago by some wag. Professor Schoenbein, at the recent meeting of Swiss scientific men, at Geneva, expressed himself much amused at the credulity of our countrymen in believing a story for which there is not the slightest foundation. Antozone, therefore, has no existence.

In the latest number of *The Archaeologia*, Vol. 39, Part II., there is, among other papers of value, a letter from the late Mr. Corner, explanatory of four curious and brilliant illuminations on vellum, of which excellent coloured facsimiles are given, representing the four Courts of Law in the time of Henry VI. The judges, the officers, the serjeants-at-law, the barristers, are all there, drawn and painted with the force and vivacity that is obtained only when sketching from nature. The Court of Chancery, the King's Bench, the Common Pleas, and the Exchequer, are represented with appropriate differences. In the picture of the Court of King's Bench, the prisoners introduced express the varied wretchedness, and the tipstaves the unvaried stolidity, of prisoners and policemen in the present day. As illustrations of legal costume in bygone times they are also valuable; and in a note, the antiquaries have even allowed a joke to creep into the record of their transactions, which, as few readers will look for it in the *The Archaeologia*, we may be pardoned for disinterring. Referring to the purple robes of the serjeants, Serjeant Atkinson, says the note, quotes an epigram of the facetious Jekyll:—

The serjeants are a grateful race,  
Their robes and speeches show it;  
Their purple robes do come from Tyre,  
Their arguments go to it.

MESSRS. SEELEY, JACKSON, and HALLIDAY are preparing for publication "Salvator Mundi; Brief Meditations on the Life of Christ, Selected from Great Divines, and Illustrated with Photographs from the Works of Great Masters." "Charity Hiltone," by Mrs. Carey Brock. "A Second Series of Cambridge Sermons," by the Rev. Canon Clayton, the new Rector of Stanhope. "The Schoolmistress of Herondale; a Tale Bearing on Modern Systems of Education for the Poor." "Mercy and Truth; Brief Narratives of Real Life," edited by the Rev. C. Carus Wilson. Two new volumes of the illustrated series of large-type books for young children, one on Dogs and one on Birds. "Mabel and Cora, or the Sisters of Stoneycroft Hall," by the author of "Among the Mountains." "Parish Work; Hints for the Younger Clergy," by the Rev. Canon Champneys; and a new edition of Mr. Dale's "Clergyman's Legal Handbook," with large additions.

MESSRS. MOXON and Co. have issued a prospectus of "A Biography of William Henry Hunt," by F. G. Stephens, illustrated by chromolithographs and woodcuts from the artist's works. One object of the work (which is to appear at Christmas) is "to correct the common mistake of associating Hunt's name only with paintings of still life. The variety of his works is only less extraordinary than their beauty." A list of Hunt's works, as nearly perfect as possible, is promised, and assistance in making it is requested. We may therefore excusably publish the following anecdote:—A few months ago, an acquaintance staying at Hastings entered one of the fishermen's cottages on the eastern region of the beach. Hanging in the principal room of the dwelling was the portrait of a child that attracted notice. It was a painting of Hunt's, given to the parents in return for the services of the child in carrying his paint-box, &c., about the beach. Slight enough it is, no doubt, but if Mr. Stephens has not heard of it, he will be glad to make even this small addition to his list of the worthy artist's works. The little child died, and the parents, unconscious of the artist's fame, attach a priceless value to the memento.

THE *Morgenblatt für gebildete Leser*, No. 36, continues "The Great Schools of England;"—the *Magazin für die Literatur des Auslandes*, No. 36, an essay upon recent English literature; "Hegel's Philosophy," "Mill on Hamilton," "Grote's Plato," &c. &c.;—the *Europa*, No. 37, "Nachklänge Germanischer Mythe bei Shakespeare;"—the *Gartenlaube*, No. 36, "Die Judengasse in Frankfurt und die Familie Rothschild;"—the *Serapeum*, No. 13, "Bibliotheca Americana Vetustissima;" "A Description of Works Relating to America,

printed between the years 1492—1551;" also an unpublished autograph letter of Rabelais;"—and the *Ausland*, No. 35, "Stonehenge and Abury;"—and "Reise von Montevideo nach Matto Grosso."

ACCORDING to M. Blaze de Bury, in the *Révue des Deux Mondes*, the chief situation in Meyerbeer's "L'Africaine" is to be found in "The Law of Java," a drama written some forty years ago by George Colman the younger, and furnished with an overture and incidental music by Bishop. M. de Bury told the plot of "The Law of Java" to Meyerbeer, who expressed his surprise at the existence of the piece, and added: "But don't imagine that to be the subject of 'L'Africaine.'" He at the same time asked M. Blaze de Bury to show him "The Law of Java," and, as if in a fit of abstraction, locked it up in a drawer. Some time afterwards he said: "You make a mistake about 'L'Africaine'; but don't tell any one even what you suppose the subject to be, and keep your English play to yourself." "Keep it to myself!" exclaimed M. de Bury. "It is all very well to say that, but you took it from me and locked it up." M. de Bury was now more than ever convinced that he had made a great discovery, says *The Pall Mall Gazette*. But there is really very little more resemblance between "The Law of Java" and "L'Africaine" than between Monmouth and Macedon. There is a upas tree in Colman's play, and there is a manchenilla in Meyerbeer's opera, but in Colman's play the upas tree is not seen, and no heroine dies beneath it; whereas in Meyerbeer's opera the death of the heroine beneath the manchenilla takes place in the middle of the stage, and is the great "situation" in the piece. From George Colman's preface to "The Law of Java" we learn that Försch, a Dutch surgeon, published, about the year 1774, an account of the upas tree, and of the manner in which criminals in Java were sent to it for the purpose of obtaining its poison; "an account," says Coleman, "intended to pass for matter of fact, and which is now exploded as a fiction." It was Försch's narrative, however, which suggested the drama of "The Law of Java," and either Försch's narrative or the drama founded upon it may have suggested the libretto of "L'Africaine."

ERNEST ROSSI, the distinguished Florentine actor, is about to perform in Paris. He will then, it is understood, come to London, and play in Italian versions of some of the tragedies of Shakespeare.

THE State apartments of Windsor Castle are again thrown open to the public during Her Majesty's residence in Scotland.

SIR F. LEOPOLD M'CLINTOCK, the Arctic voyager, succeeds the late Commodore Peter Cra-roft as Commodore of the Second Class at Jamaica.

THE hideous practice of "waking" is still carried on in London by the Irish. We know a recent instance where the body of a man, who had died of drink, was kept for a week. He was stretched out on a board, with the face exposed, and a tallow candle on each side of him. The friends of the family were flocking into the room, about twelve feet square, to the number of ten at once, during the whole time, night and day. Many much worse instances might be found. When will the local authorities adopt the Continental system, and enforce speedy burial?

#### THE ARCTIC EXPEDITION.

WE have received from the Royal Swedish Academy of Sciences a Map of Spitzbergen, with explanatory remarks in illustration (by N. Duner and A. E. Nordenskiöld). This beautiful map is the result of the two last expeditions undertaken to explore that group of islands. It is based upon astronomical observations, made at about eighty different places on the shores of Spitzbergen, with prism-circles by Pistor and Martins, mercury horizons and good chronometers by Frodsham and Kessels. The observations were calculated by Professors D. G. Lindhagen and Duner. The latitude and longitude of seventy-nine different points are given—the longitude of Sabine's Observatory, determined as 11° 40' 30", being taken as the starting point of the longitudes. The value of such a map is at once apparent. All the highest mountains were ascended during the expedition, and the height of twenty-eight peaks is given; the highest being Lindströms Mount of 3,300 English feet. The permanent snow-line commences at about 1,500 feet. The whole interior country forms an even ice plateau, here and there interrupted by rocks. There are many good harbours, and on this map the places are marked where



16 SEPTEMBER, 1865.

## SCIENCE.

## THE BRITISH ASSOCIATION MEETING.

Birmingham, Wednesday Night.

the explorers anchored, or saw other vessels at anchor. A detailed account is given of these "Spitzbergen harbours." Large masses of drift wood and plenty of coal render Spitzbergen more habitable than it would otherwise be. Fish, fowl, and reindeer are to be met with in great numbers. We quote the last passage of the memoir entire, as bearing upon one of the most interesting questions of the day. "During the last years the idea has been vindicated, that the Polar basin is composed of an open sea, only here and there covered with drift ice. The learned geographer, Dr. Petermann, has even asserted that it would be as easy to sail from Amsterdam Island (79° 47') to the Pole, as from Tromsø to Amsterdam Island. This view is in itself so contrary to all experience that it scarcely merits refutation, but as different prominent English Arctic navigators seem inclined to adopt the same view, in spite of the experience gained by their own numerous Arctic expeditions, we will here give some of the most important reasons against this supposition. All who for a longer period have navigated the northern seas, whalers and Spitzbergen hunters, have come to the conclusion that the Polar basin is so completely filled with ice that one cannot advance with vessels, and all the attempts that have been made to proceed towards the north have been quite without success. Passing by older voyages, Torell and Nordenskiöld ascended, during the expedition in 1861, on the 23rd of July, a high top on Nordeast Land, Snötoppen (80° 23' L.), without being able, from that height to see trace of open water to the north of the Seven Islands. A few days later, when the ice between Northeast Land and the Seven Islands was separated a little, they could push forward as far as to Parry's Island, though they, even from the highest tops on these islands (1,900 feet, 80° 40' L.) could see nothing but ice northwards. From the top of White Mountain, at the bottom of Wijde Jans Water (3,000 feet), we could on the 22nd of August, 1864, not see anything but ice between Giles Land and Spitzbergen. Some vessels, that had the same year attempted to sail round Northeast Land, were shut up by ice, and had to be abandoned by their crews. Before leaving the ships, an attempt was made to sail north, in order to return this way to Amsterdam Island, but they were soon met by impenetrable fields of ice. Notwithstanding a high prize has been offered for the reaching of high degrees of latitude, none of the whalers, who else sail boldly wherever the hope of gain allures them, have considered it possible to win this prize. They would certainly not have neglected to make an attempt, had it been possible, as Dr. Petermann asserts, to sail to the Pole in three or four weeks. We have had opportunities of speaking to most of the masters of vessels sailing to Spitzbergen. They make their richest booty during autumn, and stay, if possible, at Spitzbergen till September or the beginning of October. At this time they are accustomed to visit Moffen (80° L.), in order to kill walrus on land. They testify unanimously that, although the packed ice at that time of the year sometimes moves from the coasts of Spitzbergen, yet that the ice-blink, that appears in the north, and the rapidity with which the ice at northerly winds comes down, evidently proves that the distance between the southern border of the ice and the north coast of Spitzbergen cannot even then be very great. The northern ice-fields are, even in autumn, quite close. All experience hitherto acquired seems thus to prove that the Polar basin, when not covered with compact, unbroken ice, is filled with closely-packed, un-navigable drift-ice, in which, during certain very favourable years, some larger apertures may be formed, which apertures, however, do not extend very far to the north. Older narratives, by Dutch whalers, who are said to have reached 86° or 87°, nay, even 89½°, must therefore be received with the greatest diffidence, if not looked upon as pure fictions, and the prospect of being able to advance with vessels from Spitzbergen to the Pole is, no doubt, extremely slight. It would be particularly unwise to choose the spring for such an attempt, and the passage east of Spitzbergen. At that time and by that passage it would be difficult, if not impossible, to reach even 78° of latitude. Whereas, on the west side, one can every year depend upon reaching the 80th degree of latitude, and in favourable years it might be possible, in September or October, to sail even a couple of degrees higher."

WITH that change of opinion which (as remarked by Professor Rolleston last night to the Red Lions) has rendered the writing down of such institutions as the British Association and Lord Palmerston impossible, has passed away the necessity on our part of giving any detailed account of the general doings here during the past week. We hope, in the sectional proceedings and reports, to give an idea of the important scientific work; but, if we were to attempt as much for the *soirées*, excursions, and *réunions* of one band and another, our task would only be accomplished by the utter exhaustion of our space and our readers' patience. Nevertheless, we cannot pass them over in silence; for, while the "official" gatherings have passed off admirably, there has also been an undercurrent of unreserved private inspection of all the most important establishments in this workshop of the world. This item, indeed, has proved more characteristic of the present meeting than could have been anticipated. The manufacture of pens, pins, guns, and a thousand other things; the processes of glass-making; electro-plating as carried on by such European men as Chance, Osler, and Gillott; and the Black Country *en gros*, have been inspected; and we bear willing witness to the generous hospitality which has, in some cases, been extended to the visitors, in addition to the rich mental treat provided for them. What has been done for the town of Birmingham by individuals has also been done for whole districts by the South Staffordshire Committee, established *pro tem.* with generous intent, and who have sat permanently during the meeting, and the Severn Valley Field Club, who took we do not know how many excursionists in tow last Saturday, and feasted them right royally, both mentally and bodily, imitating therein the example set by Mr. Maw, to whom, as *cicerone* first and host afterwards, to say nothing of a wholesale giving up of the arcana of encaustic tiles, many are indebted. Archaeology, geology, and Coalbrookdale, with its most encouraging "Literary and Scientific Society," housed in a magnificent building provided by the iron-masters, and fostered by the spirit of the Severn Valley Field Club; Brosely, sacred to tiles, aye, smokers and pipes unparalleled! were by turns discussed.

The *soirées*, now at the Town Hall, now in the well-filled rooms of the Society of Artists, now enlivened by grandest organ peals, now by choicest of orchestras, have been extremely successful. It was more than a coincidence, surely, that in the very nick of time, models, the very concrete workings of the mind of a man of whom this whole town is a monument—we speak of James Watt—should be discovered. The list of them is so precious that we print it here. Those which interested us most were the rotative motions invented as substitutes for the crank so wickedly filched from him. We may add that they have now been removed to South Kensington. Here is the list:—

1. The Steam Cylinder and Condenser with which James Watt made his first experiments on Separate Condensation.
2. Rotative Motion, invented by Mr. Watt as a substitute for the Crank. 1781.
3. Rotative Motion, substitute for Crank. 1781.
4. Sun and planch Rotative Motion, substitute for Crank. Date, 1781-1782.
5. Horizontal Rotative Motion, substitute for Crank. 1781.
6. Model of direct Pumping Engine.
7. Model of single-acting Pumping Engine.
8. Ore Crushing Mill.
9. Model of Tilt Hammers.
10. Model of Rotative Engine.
11. Models of single and double trussed Engine Beams.
12. Model of Mill for Grinding Corn.
13. Original Model of Parallel Motion.
14. Portable Writing Desk and Copying Machine.

The number of members and associates at the present meeting has been 1,997, but if there is here a falling off in the figures as compared with former years, we must add that the number of really eminent men in all branches of science, and from all countries, who have rallied round this year's President, is quite exceptional. Here is a list of the foreigners: Octave de Benazé, Ingénieur de l'Impériale Marine, France; M. D. Conway, Boston, United States; Dr. H. Rónay, London; J. C. R. Capello, Director of the Lisbon Observatory; Professor A. Vámbéry, Hungary; O. A. Le Mörch, Copenhagen; Dr. Van der Hoeven, Leyden; H. von Deeken, Bonn; Dr. Edward Grube, Breslau; Professor Plücker, Bonn; M. de Kanikof; Professor Rümker, of the Observatory, Hamburg; Dr. Gaudry, President of the Geological Society of France; Dr. F. Roemer, Professor of Geology; Dr. J. E. de Vry, the Hague; Commandatore Negri, Florence; Henry Kiepert, Ph.D., Professor of Geography, Berlin; Valedmar Schmidt, Denmark; A. Bastian, Dr. Med., Bremen; Herr von dem Borne, Prussia; Adolf Gurlt, Ph.D., Bonn; Professor Steenstrup, Copenhagen; Goranslon, G. A., Gifse, Sweden; Captain Belavenet, Superintendent of the Compass Observatory, Cronstadt.]

Nottingham has been fixed upon as the place of meeting next year, with Mr. Grove, Q.C., as President—a happy choice, which has given general satisfaction. There are few men whom the British Association could more worthily honour as a real advancer of science. The good people of Nottingham, both town and county, are determined to spare neither pains nor expense to make their meeting a successful one. The Nottingham local secretaries *in esse*—and let all local secretaries *in posse* look to it—have been here very busy, learning, and trying to improve upon the way in which the work has been done in Birmingham; the former we hope they have done, the latter they cannot do.

The sectional work has been kept up with much interest, and several important discussions have taken place; but of these more next week. We may, however, mention that the hero of the Matterhorn, Mr. Whympier, has described the topography of the *Aiguille Verte*, his last conquest, and the geology of the Matterhorn. Then, again, the Franchise has been discussed in Section F, "apart from all political considerations"—that is, it was to have been; and the Atlantic Cable, the *Eozoon Canadense*, Kent's Hole, and the Ascent of the Parus, may be also mentioned as *pièces de résistance*.

The last meeting of the General Committee was held this morning, and the following report of the Committee of Recommendations was read.

The Committee of Recommendations have received the two following recommendations from Section D:—

1. That the title of Section D be for the future "Section D, Biological Science."
2. That Section D should comprehend the whole field of biological science, that the Council should cease to make special arrangements, and to nominate a president for a Physiological Sub-section D. That arrangements should continue to be made by the executive from year to year for a room adequate to receive any one sub-section which the committee of Section D may be pleased from time to time to form. That in nominating vice-presidents to Section D, regard should be had to the possibility of a sub-section being formed for any one of the great branches of biological science, over which a vice-president might be called upon to preside. The committee have carefully considered these propositions, and beg to report, as their unanimous decision, the following recommendations, to take effect at the next meeting:—

That the title of Section D be changed to Biology, and that the Council be charged with making the requisite arrangements.

The Committee have received the following recommendations from Section E:—

That it is highly desirable to establish a Section or Sub-section for the discussion of the Science of Man; and it is moreover urged upon the consideration of the Committee of Recommendations to take such action in the matter as



will effectually prevent the limited time of this section being wasted in future.

The committee have carefully considered this proposition, and recommend as their unanimous decision that no separate Section or Sub-section be established for the Science of Man.

The committee unanimously recommend that for the word "Sub-section" in the third paragraph of the business of sections the word "Department" be substituted.

#### PROFESSOR JUKES' LECTURE.

The title of this lecture was "Possibilities as to the Extent and Position of the Coalmeasures beneath the Red Rocks of the Midland Counties." Professor Jukes, after referring to the fact that some thirty years ago he first heard this year's President deliver lectures on geology in the lecture theatre of the Old Philosophical Institution in Cannon Street, in that town, so that he might claim the President as one of his instructors in that science, which he had made the business of his life, said he wished to limit the subject of his lecture to the elucidation of the point that while there were doubtless large tracts of Coalmeasures, containing good beds of workable coal, concealed under the red rocks of the Midland Counties, there were certainly some tracts, and possibly many, where there were no Coalmeasures beneath those red rocks. There would be nothing in this that was not familiar to all theoretical or soundly practical geologists, but he thought the point was one which was not sufficiently attended to. He would endeavour to explain the matter in such a way as should render it clear to those even who were not geologists. He then referred to geological maps, sections, and diagrams illustrative of the order of succession of the different groups of beds with which he had to deal, and of their relations one to the other. Each of these groups of beds had been formed by the deposition of sands, clays, and silts, in water, chiefly that of the sea, limestone being formed at intervals by the growth of marine animals, and coal occurring occasionally in one group, the produce of the *débris* of plants, chiefly, if not wholly, terrestrial. After the formation of each of these great groups of beds an interval occurred during which not only was the deposition suspended, but the previously-formed beds were disturbed by forces acting from within the earth, such as are indicated by earthquakes, and greatly eroded by denuding agencies acting from without—namely, by the sea, and by the air, rain, rivers, and all other atmospheric agencies. By these latter actions new surfaces were formed on the previously-existing rocks, and when they were again depressed beneath the sea, and fresh deposition took place upon these *surfaces of erosion*, that relation was produced which geologists designate as unconformability. This unconformability of one set of beds to another was always proof of an interval during which the lower set were disturbed and more or less destroyed. The red rocks of which he had to speak were divisible into two groups, the uppermost of which were called New Red sandstone or Triassic beds, and the lower Permian. The New Red sandstone formed the base of the Mesozoic or Secondary series; the Permian the top of the Palaeozoic or Primary series; and this, with the Coalmeasures, Carboniferous Limestone, and Old Red sandstone, may be called the Upper Palaeozoic, while the Silurian beds and all below them may be called Lower Palaeozoic. The Carboniferous Limestone was certainly formed in a sea which spread over the greater part of the British Islands, but an island or islands formed of the Lower Palaeozoic beds then stretched across the Midland Counties from Wales, through Shropshire, South Staffordshire, and Warwickshire, into Leicestershire, and perhaps still further to the east and south. In consequence of the existence of this land in the Carboniferous Limestone Sea, little or none of that rock was formed in the districts named. Subsequently, however, this land was depressed beneath the water in which the Coalmeasures were formed, and the uppermost beds of that group spread in level sheets over that land, so that the whole district was covered with Coalmeasures from South Wales into Scotland, a few very small islets of Lower Palaeozoic rocks probably peering through the Coalmeasures in North Wales and Shropshire, in Charnwood Forest, in Cumberland and Westmoreland, and in the highlands of the Scotch border. There was then a period of disturbance and denudation in which the Coalmeasures were bent and faulted, and certainly a good deal eroded. Upon this eroded surface the Permian beds were deposited, but we have no proof that any large mass of

Permian beds was deposited on any other rock than Coalmeasures in the Midland Counties, though in Yorkshire and Durham it rests on the Millstone Grit. After the deposition of the Permian beds, another interval occurred, in which there was yet more disturbance and destruction, and the Coalmeasures especially suffered so much as to be separated into the isolated patches forming our present coal-fields. The Coalmeasures which originally spread over the Old Red sandstone of South Wales and its borders connecting the Forest of Dean coal-field, and the South Welsh coal-field, with those of the Cleve Hills and the Forest of Wyre, were then probably removed. And it was then that the great arch of Coalmeasures which spread over the Derbyshire and Yorkshire hills was swept away, and the lower rocks exposed, and a similar destruction caused of the Carboniferous rocks which formerly spread far into North Wales. That this destruction of the Carboniferous rocks took place in the interval between the Permian and Triassic periods is proved by the Triassic beds alone resting on the denuded edges of the Millstone Grit and Carboniferous Limestone in South Derbyshire, in North Staffordshire, and in the Vale of Clwyd, and the borders of Denbighshire and Shropshire. The Triassic beds (or New Red sandstone) were probably spread over a still larger surface than that which is now covered by them. Upon the top of this New Red sandstone, as on a level floor, were laid down in succession the Lias, the Oolites, and the Cretaceous series which spread over the south-east of England. These also once extended far to the north-west of their present limits. The old dislocations (or faults) which had been formed in the Carboniferous rocks during the first period of disturbance were again acted on at subsequent periods, and new cracks and fissures probably produced, causing great vertical dislocations in the newer beds, but there has not since the Triassic period been in the Midland Counties any great bending or tilting of the strata, the New Red sandstone seldom departing more than 10° from the original horizontal position in which its beds were deposited. The practical problem for solution is, under which part of the New Red sandstone do Coalmeasures with workable coals still remain? How thick is that New Red covering in those parts? Do the Permian rocks also occur there between the New Red and the Coalmeasures? This problem is one which may fairly be put before Her Majesty's Geological Survey, under Sir R. I. Murchison, with the expectation that some approximation to its solution shall be authoritatively stated. Though not authorized to speak for the Director-General, or his colleagues, Mr. Jukes would for himself be inclined to accept the responsibility to a certain extent. The Geological Survey should be able better than any one else to say, first, what is the approximate thickness of the New Red sandstone at any locality; secondly, whether Permian rocks would be likely or not to occur below it at that locality, and how thick they would probably be; thirdly, whether it is more or less likely that a good thickness of Coalmeasures should remain undestroyed beneath those two groups of red rock in that locality. Mr. Jukes referred to diagrammatic sections, showing three possibilities for the Upper Palaeozoic rocks beneath the plains of Cheshire; the first with a good thickness of Coalmeasures underneath the New Red sandstone, isolated patches of Permian only occurring here and there; the second in which the New Red sandstone and Permian remaining the same, the Carboniferous rocks were thrown into greater undulations, and the Coalmeasures occasionally denuded, so that the New Red sandstone rested directly on Carboniferous Limestone; and the third in which the New Red sandstone above, and the Coalmeasures below, remaining the same as the first, a much greater thickness of Permian rock intervened continuously between them, causing the Coalmeasures to lie at an additional depth of many hundred feet below the surface. In his opinion those three supposed cases were almost equally probable, and several combinations of them might possibly occur, rendering the cases still more complicated, and the search for coal one of great hazard and uncertainty. What was true for the plain of Cheshire between the coal-fields of Denbighshire and North Staffordshire, was also true for the other areas of New Red sandstone between those coal-fields and those of Shropshire, South Staffordshire, Warwickshire, Leicestershire, and Nottingham. About the latter district, however, there were large spaces in which it could be predicted with considerable certainty, that the New Red sandstone had no

Coalmeasures beneath it, but reposed directly on Millstone Grit, Carboniferous Limestone, or on one of the Lower Palaeozoic groups. As regards the thickness of the New Red sandstone, it is probable that each of the two sub-groups into which it is divisible attains a maximum thickness of 1,000 or 1,500 feet, though it is doubtful whether they ever both have that maximum at any one locality. In sinking for coal anywhere in the red marl, then, it would be only prudent to allow 600 yards or 1,800 feet for the thickness of the New Red sandstone, and 300 or 400 yards additional for possible Permian rocks. A possible thickness, then, of 1,000 yards will have to be pierced before arriving at that point at which the occurrence of Coalmeasures is possible. If they do occur, a still further depth of 300 or 400 yards may have to be reached before a good workable bed of coal be found. At the Duke of Newcastle's pits at Shireoak Colliery, near Worksop, after piercing the Permians, they sank 1,280 feet (more than 400 yards) before reaching a good workable coal. But after sinking the first 1,000 yards, it is quite possible in Cheshire, Staffordshire, and Warwickshire that the pit would come down into Coalmeasures containing no coal, or into some of the rock groups inferior to the Coalmeasures, the latter beds having been there washed away by denudation before the covering of red rocks was deposited. If we look at the geological map and observe the way in which the Coalmeasures, once so widely spread, and so continuous, are now separated into detached coal-fields, by areas in which lower rocks appear at the surface, and recollect that the part not covered by the red rocks may be only a fair representation of the general condition of that which is covered by them, we shall be at once aware of the uncertainty of finding coal at all beneath any given district of New Red sandstone in the Midland Counties. Suppose the New Red sandstone spread over Derbyshire and Denbighshire, as it does over Cheshire, it is obvious that in large parts of the former counties it would repose directly on Millstone Grit, on Carboniferous Limestone, or on Upper Silurian rocks. There is a possibility that it actually does so in large parts of Cheshire, Shropshire, Stafford, Worcester, and Warwick, as it certainly does in South Derbyshire and the adjacent districts. An important element for the solution of the problem is the exact determination of the nature of the boundary faults of the Midland coal-fields. If these are mere lines of dislocation, all the coal beds in the coal-field must be found beneath the adjacent red rocks at some depth or other, and these red rocks must have spread over the coal-field with the same thickness which they have outside it. If, however, these lines are of the nature of old cliffs, then it is quite possible that the Coalmeasures, with their valuable contents, may have been more or less completely destroyed, and the red rocks merely taken their place. Viewed in this light, such operations as those proposed by Mr. S. Baily, of Walsall, and by Mr. Beckett, to drive through the boundary fault near Essington, and then bore, are very important. Lord Shrewsbury not long ago bored on the downthrow side of the fault, at the back of Brereton Church, near Rugeley, passing through 629 feet of New Red sandstone, and through 351 feet of genuine Coalmeasures below it, but without meeting with any bed of coal such as he is working at his pits a quarter of a mile off. Any exploration in near proximity to one of these boundaries, however, is likely to be more valuable in giving us information as to what we may expect further on than in directly profitable results. Numerous trials have been made of late years in different parts of the red rocks, which could only have a foolish waste of money as their result. Lord Stamford bored 565 feet in the New Red sandstone of Highgate Common, near Enville. Another gentleman bored 390 feet into the same rock at Swindon; another 565 feet, beginning in the Red Marl at Great Chatwell, near Lilleshall. The late Mr. Unett sank and bored 664 feet into the Permians at Smethwick. A boring also was made in search of water to a depth of 617 feet in the New Red and Permian, at Goldthorn Hill, near Wolverhampton, and numerous other similar trials have been made. All such experiments, if made in search of coal, are quite futile. Any one intending to try for coal beneath the red rocks must be prepared to sink boldly a thousand yards before he has a chance of meeting with the Coalmeasures. It is quite possible that the red rock covering (taking Triassic and Permian together) may have that thickness



at any spot that may be selected. There is then a chance, and only a chance, of the speculator finding himself in the Coalmeasures with good beds of workable coal still beneath him. But there is also a chance of finding Coalmeasures destitute of valuable beds, or of not finding any Coalmeasures at all, but coming down into Millstone Grit, or Carboniferous Limestone, or some Lower Palaeozoic rock, the Coalmeasures having been removed by denudation before the red rocks were deposited. In such a hazardous speculation we cannot expect private individuals to engage. It must either be undertaken by a combination of proprietors, such as (we learn from Mr. H. Johnson's paper in the June number of the "Transactions" of the Dudley and Midland Geological and Scientific Society) is now being carried out by Mr. J. S. Dawes within the limits of the South Staffordshire coal-field, near Hales Owen, or it must be undertaken at the expense of the nation. Mr. Jukes declared his own opinion to be that the national importance of determining the extent and position of the coal-fields beneath the red rocks of the Midland Counties is so vast, that the exploration must be made at the national expense, with, of course, every fair provision for its repayment by those most immediately benefited by it.

#### Section A.—MATHEMATICAL AND PHYSICAL SCIENCE.

*President*—W. Spottiswoode, F.R.S.

*Vice-Presidents*—W. B. Grove, Professor Sylvester, F.R.S., Professor Tyndall, F.R.S., J. P. Gassiot, F.R.S., Dr. Lloyd, F.R.S., Professor Price, F.R.S., Professor Stewelly, and Principal Forbes, F.R.S.

*Secretaries*—Professor H. J. S. Smith, F.R.S., J. M. Wilson, Fleming Jenkin, F.R.S., G. S. Mathews, and Rev. T. Neville Hutchinson.

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The President's address ran as follows :—

The great range of subjects comprised in this section, and the multiplicity of papers submitted to it, have doubtless contributed to deter my predecessors in this chair from preparing addresses so elaborate and comprehensive as those delivered to other sections. The custom, however, of prefacing the business proper by a short summary of subjects which have engaged the attention of philosophers during the past year, and which may therefore be expected to come before us during our present sittings, appears to be sanctioned by the wishes of our members, and may perhaps be followed without materially departing from that brevity which is here both customary and desirable. Foremost among the astronomical subjects in which we may hope to receive communications are the researches of Messrs. De la Rue, Stewart, and Loewy, in solar physics. Without attempting to anticipate what they may have to state, it may be as well to remind the section that it seems now to be established that solar spots are at a lower level than the penumbra, the faculae at a higher; that the photosphere is gaseous; and that the behaviour of the spots, as to appearance and disappearance, is connected with the position of the planets, and principally upon that of Venus. The objection to this view on the nature of sun spots which has been raised on the ground of the unbroken curvature of the sun's limb, notwithstanding the elevation of the faculae and depression of the spots, has been answered by Professor Phillips in a paper read before the Royal Society. That the central mass is of less brilliancy than the photosphere, is also ascertained; but whether this arises from solid matter at a lower temperature, or otherwise, is still a question. M. Faye, in an elaborate memoir presented to the French Academy, suggests that it may consist of transparent gas.

The moon continues to be the subject of careful investigation, both theoretical and observational. M. Delaunay explains that the delay in completing the second part of his lunar theory arises from his having to carry his developments beyond the order originally contemplated—viz., the seventh—in some cases as far as the eighth and ninth. M. Allégret states that the terms involving the cube of the time became important when determining the secular varia-

tions. Under this head mention must not be omitted of Professor Cayley's valuable contributions to the lunar theory.

The Lunar Committee of this Association have been most actively engaged during the past year, and will state the results of their labours in their report.

The planet Mars has been the object of much telescopic research on the part of our President, Messrs. Dawes, Lockyer, and others. The supposition that the redder parts of its disk are land and the greyer parts sea, appears to be verified; recent observations also confirm the view that snow is visible in its polar regions. Comparing the latitudes of Arctic climates on Mars with those on the earth, it has been concluded that the temperature on the two planets is not very different. The solar radiation in the two cases is, of course, very disproportionate; but the explanation of the result is to be sought in the action of a dense atmosphere, which, as Professor Tyndall has shown, serves to retain large quantities of heat which would otherwise radiate off into space.

Mr. Lassell has communicated to the Royal Astronomical Society an ephemeris of the satellites of Saturn, now finally reduced to four.

The number of the minor planets continues to increase. M. Serret has presented to the Academy of Paris a theory of the movement of Pallas, complete as regards the perturbations of the principal planets. He promises a second part, discussing the influence of the minor planets, in which he states that he has arrived at some curious and unexpected results.

Although the subject of auroras more properly belongs to that of terrestrial magnetism, it may here be mentioned that the height of these phenomena has been determined at from thirty-five to 290 miles. Meteors and falling stars, whose periodic visits in August and November are well known, have, by the labours of Alex. Herschell, Quetelet, and Secchi, both been shown to be minute planetary bodies, differing only in size. When visible, they pass at a height of from fifty-two to seventy-three miles above the surface of the earth. M. Deville has even attempted to account for the known depression of temperature in February and May, and the elevation in August and November, by their position intercepting the heat of the sun during the former periods, and preventing the heat from the earth radiating into space during the latter.

Before leaving our solar system, we must notice the discussion which has arisen respecting an expedition to the Antarctic regions to reconnoitre for practicable stations for the observation of the transit of Venus in 1882. It is unnecessary to remind this section that upon accurate observations of this phenomena at proper points upon the earth's surface will depend a verification or otherwise of M. Foucault's correction of the sun's distance due to his new measurements of the velocity of light. The question of the expedition, however, will doubtless be fully discussed in the geographical section.

A celestial atlas, just published by M. Dien, promises to surpass all its predecessors in accuracy of detail. The difference of longitude between points on the great arc of parallel, Bonn, Nieuport, and Haverfordwest, has been carefully observed; also the longitude of the observatory at Glasgow.

The usual amount of attention has been paid by observers and calculators to the subject of comets and their orbits. But besides this, M. Hock, in a paper presented to the Royal Astronomical Society, has argued in considerable detail in favour of his view that comets move in parabolic and hyperbolic orbits, not in ellipses; that they are not isolated bodies, but consist of groups, fragments of bodies broken up by the sun or planets.

Passing to the more remote celestial objects, Mr. Huggins has been continuing his observations on, and has determined, the spectra of the fixed stars and nebulae, of which we may hope to hear some further particulars. In the meantime, I will notice only one point, but that a very curious one. Lord Rosse and Professor Bond find, by telescopic observations, that the brighter portions of the great nebula in Orion are apparently resolvable into stars. Mr. Huggins' analysis, on the other hand, gives a spectrum consisting of three bright lines only, indicating a gaseous condition. An explanation of this apparent contradiction is perhaps to be found in the suggestion that the bright points shown by the telescope are not stars in the ordinary sense of the term, but condensed parts of the nebulous fluid. Imagination would lead us to suppose that we have here before us a

stage of cosmical process intermediate between nebula and stars, the formation of a sun; but strict science forbids us as yet to adopt this as an ascertained conclusion.

Spectrum analysis continues to receive further additions at the hands of the chairman of our Kew committee, Mr. Cassiot, who has carried the question so far as to construct an apparatus for determining whether the so-called fixed lines of the solar spectrum undergo any displacement through the variation of gravity, in passing from one latitude to another on the earth's surface.

The operations at the Kew Observatory in terrestrial magnetism, and in the pendulum apparatus recently erected there, will form the subject of a separate report. In the former department the observations at Stonyhurst give as the annual secular decrease of dip for the mean epoch of 1861—9, 2' 614; a result not very different from that determined by General Sabine for London—viz., 2' 69. From the same quarter we are informed that the annual increase of total force is '0030 British units. Although this requires observations continued over a longer period, it may still be regarded as confirmatory of the fact that the total force is increasing.

To Professor Tyndall's researches in radiant heat allusion has been already made. From himself, however, we hope to receive a communication on his more recent experiments, whereby he has been enabled entirely to cut off the luminous from the calorific rays, and to produce not only combustion in an absolutely dark focus, but also the incandescence of platinum by non-luminous rays.

Among the experimental improvements in subjects kindred to this may be mentioned M. Marcus' new thermo-electric battery, an invention likely to render this kind of battery far more generally serviceable than has hitherto been practicable. Like many other inventions, this has not been without some kind of anticipation, in a suggestion by Mr. Wheatstone in *The Philosophical Magazine* as long ago as 1837.

We should also notice a suggestion by M. Carlier, for dispensing with the covering of the wire in electric coils. It is said that this has been carried out with such success as to produce an increase rather than diminution of power. M. Richer also suggests the use of sulphur plates instead of glass in electrical machines. Mr. Beale has succeeded in forming object glasses for the microscope of much higher power (50th) than heretofore; and I must not omit to mention that an essential part of the apparatus consists of a cap of the thinnest possible glass, manufactured only by Mr. Chance, of this city.

From the Committee on Electrical Resistance we shall doubtless receive a further report. But the gigantic experiment to which the whole subject has recently been subjected—an experiment which, notwithstanding its present interruption, we may still call a great scientific success—will doubtless give an additional interest to anything that the members of the committee who accompanied the Atlantic expedition may have to communicate.

Side by side with these experimental researches, the mathematical theories of molecular physics have been advanced in several directions. Professor Maxwell, in this country, and M. Renard, in France, have each contributed a memoir on electro-dynamics; and the latter has deduced his fundamental formulæ from the hypothesis of a single fluid. M. Cornu, by a happy application of M. Chasles' principle of homographic planes, has deduced, from MacCullagh's theory, some propositions relating to crystalline reflection and refraction. These have the remarkable property of being independent of the wave surface, and therefore may be said to rest upon a simpler framework of hypothesis. M. Cornu is preparing some apparatus for the experimental verification of his method. M. Boussineg also has presented to the Academy of Sciences a memoir on the theory of light, in which he has taken into account terms of the second degree in the displacements. It would seem that the paper contains generalizations, comprising the theories of Fresnel, MacCullagh, and Neumann. Lastly in this connexion may be mentioned the writings of M. Saint Venant on the *vis viva* of elastic systems, and his extension of the investigations of Navier and Poncelet in the resistance of elastic bars, rods, &c.

In each of the main branches of pure mathematics, geometry, and analysis, a modern school has arisen. The former, originating with Carnot, Dupin, Poncelet, and others, dates from the early part of the present century; the latter, due in the first instance to Cayley, Boole, and Sylvester, belongs wholly to the present generation. Both schools have this in common, that figures



in the one case, and forms in the other, are not merely as isolated individuals, but as associated with other concomitant forms which characterize their various properties.

In pure geometry we have the principle of projection, whereby any plane figure is considered in connexion with all or any other plane figure lying on the same cone, in such a way that a theorem relating to one figure frequently establishes a corresponding theorem relating to the other. Thus many properties of conics in general are at once suggested, and proved by reference to the circle.

Again, the theory of reciprocal polars, or rather the principle of duality, which enables us to see points and straight lines in a condition of interdependence such that theorems relating to points (*e.g.*, positions or curves, intersections of lines, &c.) at once give rise to corresponding theorems relating to straight lines (tangents, rectilinear loci, &c.). Under the head of modern geometrical methods fall also the theory of pencils of rays and transversals; straight lines radiating from a point, and cutting another line straight or curved. This again suggests the idea of relations between the segments of the transversal (when straight) or between the angles made *inter se* by the radiating lines. The most fruitful conception of this kind has been that of the anharmonic ratio of four points or rays. This peculiar ratio remains unchanged under such a variety of circumstances, that it has arisen to an almost independent principle in geometry, and upon it M. Chasles may be said to have founded, to a very great extent, his "*Geometrie Superieure*" and his new work on conic sections, the first volume of which has recently appeared. Before quitting this part of the subject, it should not be omitted that a great part of these theories have their application to figures in space as well as to those in plano.

The second volume of this work will contain a full exposition of his recent most important contribution to the theory of conics. He has found that the properties of a system of conics satisfying any four conditions whatever may be most naturally expressed in terms of two elements or *characteristics*—namely, the number of such conics which pass through any point, and the number which touch any line. Starting from this fruitful notion, he has, by a process which may be termed *geometrical substitution*, been able to express, in a single symmetrical formula, the number of conics which satisfy any five conditions whatever. We may almost say that he has condensed into this formula the whole theory of conics.

Again, connected with this is the principle of deformation—another method of considering one figure in relation to another, the points of the one being connected by a definite construction with those of the other. By this, and in particular by a most happy extension of it by Professor Hirst, theorems and properties of curves of higher degrees are demonstrated through those of lower; *e.g.*, curves of the fourth and fifth degrees by conics.

Passing to analysis, we have in the first place the analogies of the geometrical theories above mentioned. To the method of projection corresponds (in one of its interpretations at least) the method of linear transformation; to that of deformation non-linear transformations. The method of transversals as well as those of anharmonic ratio and geometrical involution admit of a concise analytical statement; but they cannot be called methods even in analytical geometry, still less in analysis proper. The principle of duality, however, as treated by Plücher, may claim an analytical with as good a right as a geometrical basis.

Before quitting this part of the subject, mention should be made of two important and original contributions to analytical geometry in space. One, by Professor Cayley, is directed to the representation of curves in space (by means of cones having variable vertices), a method free from the extraneous branches sometimes introduced by the ordinary conception of the complete intersection of two surfaces; of the other, by Professor Plücher, we have at present only the abstract in the proceedings of the Royal Society; it promises, however, to abound in processes of great power and originality.

But the greatest acquisition to modern analysis is what is now generally termed the new algebra. This calculus, which originated in this country, and from the first received wide developments at the hand of its founders, Boole, Cayley, and Sylvester, has, during the last few years, found numerous cultivators both amongst

ourselves and on the Continent. The main problem proposed for solution is the investigation of the properties of rational homogeneous algebraical functions of any number of variables, the forms to which they are capable of being reduced, the subsidiary expressions to which they give rise, or with which they may be associated, and the bearing of the latter upon the former. Investigations so general, so abstract, and so apparently removed from any practical application, could not fail to be regarded coldly by many whose attention had been principally directed to special problems in physics. And one at least of my hearers will doubtless, with myself, recollect the unrestrained censure which, in the midst of a most hearty greeting, the late astronomer of Turin would pour upon the labours of any disciple of the modern school who chanced to visit him. The promoters, however, of this science, sure of their footing, and confident that nothing which could lead to results of such a remarkable character or of such great generality; that nothing which could unite, correlate, and simplify the apprehension of such numberless *disjecta membra* of analysis; confident that no such method would in the end prove useless, or unmeaning in the interpretation of nature—pursued their investigations; and a very short time has justified their firmness, by witnessing the new algebra reaching out and indissolubly connecting itself each year with fresh branches of mathematics. The theory of equations has almost become new through it; algebraic geometry has been transfigured in its light; the calculus of variations, molecular physics, and mechanics have all felt its influence.

The memoirs of Cayley on quantities, those of Sylvester on the calculus of forms, have become classical. Intimately connected with this subject is the theory of numbers, which at the hands of some leading analysts, principally German and French, has recently received such large extension. One peculiarity, but that of a very general character, which distinguishes some of the modern from the older methods, consists in the introduction of variable quantities into the expressions; in other words, in bringing the processes of continuous to bear upon the properties of discrete quantity. But into this it is unnecessary to enter in any detail, as we have already in our volumes the very able and comprehensive reports by Professor Smith, of Oxford. We are now anxiously expecting his final communication, not only because we shall then have before us a survey of the whole subject brought down to the present time, but still more because we trust that the author may then find leisure to complete the original work upon the theory of numbers upon which it is understood that he has been engaged for many years, and to which the reports in question form only a prelude.

The tendency which is here exhibited of some common principle running through various subjects, and bringing them into connexion, reappears in the differential resolvents of Cockle, Harley, and others, and in the transcendental solution of equations which has been effected on the Continent. In both cases, a relation is established between ordinary algebraic equations and the differential calculus; in the one, with linear differential equations; in the other, with a simple integration. Some future developments will, perhaps, throw further light upon the ultimate issue of these processes.

The calculus of operations, or of symbols, as it has been also called, whereby the symbols of operation are separated from those of quantity, has for some years been in use among analysts in this country. And although no very remarkable step has recently been made, or is perhaps to be expected, in this field, still some considerable progress has been effected towards completing the algebra, or laws of combination, of these non-commutative symbols.

It would occupy too much time to touch upon the many more subjects which suggest themselves, but it would be impossible to pass over without mention the important contributions to the theory of differential equations, and in particular of those which occur in mechanics, by the late Professors Jacobi and Boole, in whose deaths mathematical science has sustained so great losses; and, secondly, the extension which the theories of elliptic and abelian functions have received at the hands of Riemann, Hermite, Weierstrass, Clebsch, and others. The last-mentioned mathematician has brought the subject of abelian functions to bear in a most remarkable and unexpected manner upon algebraic geometry.

I will allude to only one more instance of modern generalizations—namely, the conception of imaginary quantities introduced alike into geometry and algebra, one of the most fertile

sources of new and important theorems. The funeral on this very day of one of our most profound mathematicians—Sir W. R. Hamilton—the inventor of quaternions, invests the subject with a somewhat mournful aspect on the present occasion. And here I must bring this brief and imperfect sketch of recent progress in our subjects to a close. It would have been more interesting to myself, and more justice would have been done to the writers whose names have been little more than mentioned, if I could have completed the outline, or, better still, have filled in the details. As it is, some apology is due for having so long detained you upon mathematics; but as a science whose rules all others must obey, it has large claims upon our attention, and, if a personal motive must also be confessed, one's mind lingers about a favourite subject.

## Section B.—CHEMICAL SCIENCE.

President—Professor W. A. Miller, F.R.S.

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An abstract of the President's Address will be given next week.

*On the Results of Agricultural Experiments made in 1864.* By Dr. Stevenson Macadam.—The experiments now referred to were undertaken, at the author's suggestion, by agriculturists in Roxburghshire, and they form one of the first series of field experiments undertaken in a systematic manner in Scotland. Twelve different manurial mixtures were used in the trials, and formed a set of experiments, whilst ten farmers made arrangements for carrying out the experiments in the field. The manurial mixtures employed consisted of Peruvian guano, phosphatic guano, phospho guano, bone ash superphosphate, guano superphosphate, sulphate of ammonia and ground bones, taken singly or mingled together in definite proportions. The manures were analyzed, so as to be certain of their exact composition. In each set of experiments the various operations were conducted on the same day with the plots of ground allotted to each manure. The soils on which the experiments were made were, in part, of a heavy nature, and, in other part, of a light character, the proportion of each being nearly equal. Each experiment was conducted on a quarter of an acre; and the twelve experiments, consequently, required three acres on each farm. The crop was turnips, and the yield or produce was weighed in the field. The results obtained were various on the different farms, as the manures which gave the largest return on one farm did not yield the largest crop on another. These variations are to be expected in all field experiments, and are due to the special circumstances or condition of each field where the trials are made. Where only one set of experiments are conducted on a single farm, the local influences may materially affect the results; but where, as in the present case, the field operations are conducted on ten farms, and the mean produce of the ten trials is obtained, then the disturbing influences of one farm are counteracted or practically neutralized by those of the other farms.

Taking the mean produce from the ten trials, calculated to the same money value for each of the manures, the greatest return of crop was yielded by the phosphatic guano superphosphate, followed closely by the Peruvian guano; indeed, the difference in the produce obtained from the plots treated with these manures was so slight (only 19lbs. to the acre), that they may be regarded as having yielded the same results. In referring to these experiments it must be remembered that the season of 1864 was exceptionally dry, though the drought was not so great in Scotland as it was in England. The results obtained, however, are valuable as representing the produce obtainable in a dry season; and as a similar series of field experiments are being made this year in the same district, an opportunity will be obtained for contrasting the results of both years.



16 SEPTEMBER, 1865.

On the Constitution of the Acids belonging to the Acetic, Lactic, and Acrylic Series. By Professor Frankland.—In conjunction with Mr. Duppa, the author had for some time past been engaged in investigating synthetically the constitution of the acids belonging to the acetic, lactic, and acrylic series. They had succeeded in building up the higher members of the acetic series from acetic acid itself, by the substitution of hydrogen in that acid, atom for atom, by the alcohol radicals, methyl, ethyl, &c. Numerous new members of the lactic series had been in like manner constructed from oxalic acid by the substitution of one atom of oxygen (O=16) by two atoms of the alcohol radicals, whilst several members of the acrylic series had been produced from the lactic series by the abstraction of an atom of water from the latter.

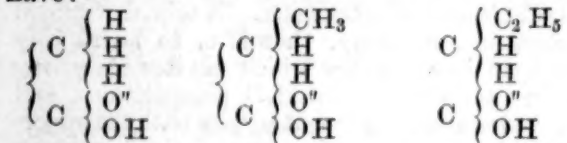
These investigations had led to the following conclusions:—

1. The acids of all three series are constructed upon the radical type. They are all double radicals, composed of a chlorous and a basylous constituent.

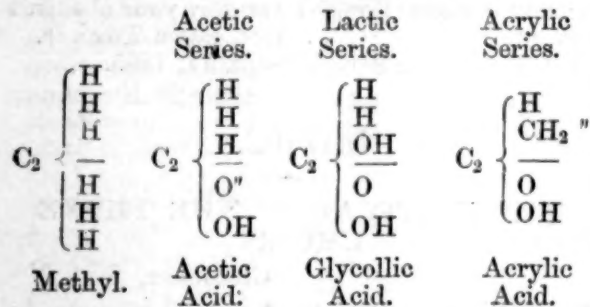
2. The chlorous constituent is the same in all, and consists of an atom of methyl, in which two atoms of hydrogen are replaced by one of oxygen, and the remaining atom by hydroxyl,

$C \begin{Bmatrix} O \\ OH \end{Bmatrix}$  It is this chlorous constituent which determines the basicity of these acids.

3. The basylous constituent is variable, both homologically and heterologically. Its homologous variation produces the different members of each series; thus in the acetic series we have:—



Its heterologous variation, on the other hand, gives rise to different series of acids, of which the acetic, lactic, and acrylic are examples. In the acetic series the basylous constituent is always an alcohol radical derived from methyl (except in formic acid, where it is hydrogen). In the lactic series it is an alcohol radical derived from methyl, in which one of the typical atoms of hydrogen is replaced by hydroxyl (OH); whilst in the acrylic series it is a similar alcohol radical, in which two of the typical atoms of hydrogen are replaced by a diatomic member of the olefiant gas family. The relations of these three series of acids to each other and to methyl may therefore be thus simply expressed:—



## Section C.—GEOLOGY.

President—Sir R. I. Murchison, F.R.S.

Vice-Presidents—Sir Charles Lyell, Principal Dawson, Professor Jukes, F.R.S., Professor Harkness, F.R.S., Rev. W. S. Symonds, and W. W. Smyth, F.R.S.

Secretaries—H. C. Sorby, F.R.S., W. Pengelly, F.R.S., Rev. P. B. Brodie, J. Jones, and Rev. Edward Myers.

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An abstract of the Address will be given next week.

On the Metamorphic Rocks and the Green Marbles of Connemara. By Professor Harkness.—The author showed, by sections and maps, that the green marbles of Connemara were a local and peculiar development of light-grey subcrystalline limestone which lies on the north side of the gneiss rocks of the south of the Bens of Connemara. This limestone dips conformably under these gneissic rocks. It is superposed conformably on quartz rocks, and

these quartz rocks, with their superposed deposits, are thrown into numerous contortions in the Connemara country. Where they are most curtailed the limestones have opened out in their lines of lamination, and into these openings the serpentinous matter, to which the green marble owes its colour, has been introduced. The metamorphic strata in the Connemara country appertain to the Lower Silurians. They are the equivalents of the quartz rocks, Upper Limestone, and Upper Gneiss of the Highlands of Scotland, as those have been described by Sir R. Murchison. It has been stated that *Eozoon Canadense* occurs among the green marbles of Connemara. The structure which has given rise to this opinion is purely mineral, and has resulted from the deposition of Serpentine upon Tremolite and asbestiform minerals.

The proceedings in the following sections will be inserted next week.

## Section D.—ZOOLOGY AND BOTANY.

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## Sub-Section D.—PHYSIOLOGY.

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## SCIENTIFIC NOTES.

A NEW mode of preparing formic acid and the formic ethers, was described by M. Lorin at a recent meeting of the Paris Academy of Sciences. Oxalic acid and alcohol, in equivalent proportions, are added to glycerine; a reaction takes place in which formic acid is produced; this then combines while in a nascent state with the alcohol, and formic ether results. After the decomposition of the oxalic acid is complete, the product is distilled, and the ether purified in the ordinary manner. With 500 grammes of amyl alcohol M. Lorin has obtained the same weight of amyl-formic ether.

We learn from Mr. Trübner's *American and Oriental Literary Record* that Dr. Gould's valuable *Report on the Invertebrata of Massachusetts*, which has long been out of print, is about to be reprinted. The author is at present engaged upon a careful revision of the work, towards the republication of which a grant has been made by the Legislature of Massachusetts. Mr. E. H. Morse is preparing for publication a *Monograph of the Pupae of the United States*. Mr. H. H. Snelling, of New York, has in the press a *Cyclopedia of Photography*, which it is promised will contain in a condensed form "all that has ever been discovered and made public in every branch of the art, alphabetically arranged." We hope Mr. Snelling's performance will be equal to his promise. Dr. W. A. Hammond, a medical writer of great reputation, is engaged upon a comprehensive work on the mental and physical disorders to which literary and sedentary persons are especially liable—a department of medical science which has not hitherto received much attention, so far, at least, as the literature is concerned.

THE *International Bulletin* of the 24th of August says that on the 14th of that month, at 11 A.M., a water-spout was seen in the valley of the Upper Rhine, near where the Soultz baths are situated. The appearance was of the usual funnel-shape, the exterior blackish, the interior white. The spout descended from a large black cloud which crossed the zenith, and twisted itself into a thousand forms, its point seeming to touch in succession the summits of the mountains surrounding the valley. The phenomena was accompanied with a rumbling sound similar to that made by a carriage rolling over stones. There was neither thunder nor lightning, but heavy rain fell from the cloud in the rear of the water-spout, which moved from the south-west to the north-east.

## SCIENTIFIC CORRESPONDENCE.

## THE EOZOON CANADENSE.

Bellagio, Lago di Como, Sept. 4, 1865.

IT is not my intention to weary your readers with any reply to Professor King's last letter, further than to repudiate most emphatically the imputation of having adopted from him, without acknowledgment, a correction of my original description of the ultimate structure of the shells of *Brachiopoda* generally. Any one who will take the trouble to look at the figures given in my British Association Report for 1847—especially at that which represents a fractured surface of *Terebratula* (now *Rhynchonella*) *octoplicata*—will see that I was perfectly familiar, long before the publication of Professor King's monograph, with the appearance described by him as produced by the aggregation of prismatic fibres. But a careful examination of the recent *Rhynchonella psittacea* had led me to doubt how far that appearance indicated the original structure of the shell. The figure I gave of one of the very thin lamellae obtained by its fission was not, as Professor King seems to imply, an imaginary one, but was an exact representation of the appearance presented by such a lamella, under a good microscope, to an experienced and conscientious draughtsman who had no theory to support. It is not, even now, easy to say how these two sets of appearances are to be reconciled. The question is one of interpretation rather than of observation. My figures represent the microscopic appearances actually presented, and there is not a single one of them which I am not prepared to justify; and it would be easy for me to show that any modification which has taken place in my views as to the meaning of those appearances has resulted from the general progress of histological research. Such of your readers as may have really followed the steps of this discussion, must have observed that Professor King concentrates his whole force upon comparative trivialities imported into it by himself, whilst he altogether passes by the funda-



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mental reason which I have assigned for his assertion in regard to the non-organic structure of *Eozoon Canadense*—the original question from which this controversy has arisen. This question will, of course, have to be decided by the scientific world upon its own merits, when all the materials for such decision shall have been made public. At present, however, it stands thus: The organic structure of this body has been satisfactorily recognized by every one of the eminent naturalists, British and Continental, who have examined the preparations in my possession; while it is denied only by a Galway professor, who has not seen those preparations, and who, on a former occasion, denied the validity of a whole series of microscopic observations whose correctness is now universally admitted, without having taken the appropriate means of testing their accuracy.—I remain, Sir, your obedient servant,

WILLIAM B. CARPENTER.

## THE MOON'S DIAMETER.

The Observatory, Cranford, Middlesex, W.,  
August 31, 1865.

A PAPER on the angular value of the semi-diameter of the moon, by M. Oudemans, has recently appeared in Vol. x. of the "Comptes Rendus" of the Academy of Amsterdam (Vorslagen en Mededeelingen der Koninklijke Akademie Van Wetenschappen). This being written in Dutch, it is not likely to be read by many astronomers. As this astronomical element is one which may require correction, you may possibly like to give your readers the benefit of a *précis* kindly sent to me by Professor Hoek, Director of the Observatory of Utrecht, who recently visited England:—

"Après avoir parcouru l'histoire de nos connaissances de cet élément astronomique, et après avoir mentionné les travaux et les déterminations de Lalande, Bürg, Friesnecher, Von Zach, Bessel, Burckhardt, Wurm, De Ferrer, Bradley, Maskelyne, Hansen, l'auteur arrive à la conclusion suivante:—

"Les recherches ultérieures ont donné pour le demi-diamètre de la lune des résultats si différents qu'il est bien incertain de savoir ce qu'il faut admettre actuellement.

"Cette conclusion a conduit M. Oudemans à comparer les valeurs données par les tables de Hansen aux observations d'occultations, d'éclipses du soleil aussi bien totales que centrales, enfin aux mesures effectuées à l'aide du héliomètre de Königsberg.

"Voici un résumé des corrections que M. Oudemans trouve pour le demi-diamètre de la lune adopté par M. Hansen.

### A.—Occultations d'étoiles.

|   |        |
|---|--------|
| 1. Occultations des pléiades, 29 Août, 1820 | —0" 86 |
| 2. " de $\delta$ Tauri, 28 Mars, 1830       | —0 49  |
| 3. " de $\alpha$ Tauri, 10 Février, 1832    | —1 11  |
| 4. " des pléiades, le 10 Août, 1841         | —1 11  |

Moyenne ..... —0" 89

### B.—Eclipses totales du soleil.

|                     |        |
|---------------------|--------|
| 1. 7 Juillet, 1842  | —2" 80 |
| 2. 28 Juillet, 1851 | —2 30  |

Moyenne ..... —2" 55

### C.—Eclipses centrales du soleil.

|                      |        |
|----------------------|--------|
| 1. 7 Septembre, 1820 | —2" 63 |
| 2. 15 Mai, 1836      | —1 64  |

Moyenne ..... —2" 13

### D.—Mesures à l'aide du héliomètre.

|                                 |        |
|---------------------------------|--------|
| 1. Bessel, le 2 Sept., 1830     | —1" 42 |
| 2. Bessel, le 26 Déc., 1833     | —1 05  |
| 3. Wichmann, le 8 Juillet, 1846 | —1 40  |

Moyenne ..... —1" 29

"M. Oudemans en déduit la correction du demi-diamètre dans les tables de Hansen:—

Pour le calcul des occultations et des mesures ..... —1" 09

Pour celui des éclipses ..... —2 34

et la valeur elle-même du demi-diamètre apparent

D'après les occultations et les mesures 15' 32".27

" les éclipses du soleil ..... 15 31 02

I may add that I have deduced from my observations of the total eclipse of 1860 that a correction of —2" 15 is necessary to the tabular lunar semi-diameter.

WARREN DE LA RUE.

## REPORTS OF LEARNED SOCIETIES.

ENTOMOLOGICAL SOCIETY.—Sept. 4.—Mr. Frederick Smith, V.P., in the chair.

Herr L. W. Schaufuss, of Dresden, was elected a foreign member. The Rev. Sir Christopher R. Lighton, Bart., and H. T. Wood, Esq., were elected annual subscribers.

Mr. Bond exhibited a remarkable variety of *Ennychia anguinalis*; an andromorphous female, and a gynecomorphous male, of *Fidonia atomaria*; and two curious specimens of *Gonepteryx Rhamni*, one of which, a male, had a portion of one wing of the pale colour peculiar to the female, whilst the other, a female, had parts of one wing of the deep colour peculiar to the male. Mr. Stainton exhibited a magnified coloured drawing of the larva of *Laverna Subbistrigella*, and pods of *Epilobium montanum* in which the larvæ had fed; also (on behalf of Mr. Dorville) a specimen of *Caradrina cubicularis*, on the wings of which numerous red *Acari* were symmetrically arranged. Mr. W. F. Kirby exhibited a dwarf male of *Polyommatus Icarus*, which measured only 8½ lines in expanse of wing. Mr. McLachlan exhibited box sexes of *Eschna borealis*, captured at Rannoch, Perthshire; *Sialis fuliginosa*, a species new to Britain, from Rannoch; a *Rhyacophila*, from Edinburgh, also new to Britain, and perhaps identical with the *R. ferruginea* of Hagen; and a *Stenophylax* from Rannoch, new to science, and which he proposed to describe under the name of *S. infumatus*. Mr. S. Stevens exhibited some Coleoptera (*Phrysona*, *Manticora*, *Goliathus*, *Eudicella*, &c.), part of a collection made in Damara-land, by Mr. Andersson, the well-known traveller.

Professor Westwood gave an account of a visit to the exhibition of insects and insect products which was opened at Paris on the 15th ult. Mr. S. Stone communicated some further notes on the scarcity of wasps. These were followed by interesting discussion on the causes of the disappearance of wasps; on the unusual abundance of chelifers on the legs of the house-fly; on the rearing of the Ailanthus silk-worm, the introduction of *Ailanthine* as an article of trade, and the valuable properties of the Ailanthus timber.

A new part of the transactions (Trans. Ent. Soc., 3rd series, vol. iii. part 2), being the continuation of Mr. Pascoe's *Longicornia Malayana*, was announced as ready for distribution.

RAY SOCIETY.—Sept. 8.—The Annual General Meeting of this Society was held in Birmingham, in the meeting room of Section D of the British Association. Professor Tennant had been announced to take the chair, but was unavoidably detained in the Geological Section, and J. Gwyn Jeffreys, Esq., F.R.S., presided. The Report of Council having been read, Dr. Lee moved, and the Rev. A. Merle Norman seconded, that it be adopted and circulated amongst the members. Dr. E. Hamilton, Dr. Hooker, Professor Huxley, and John Millar, Esq., were then elected members of council, in the room of four gentlemen retiring. Sir Philip de M. Grey Egerton, Bart., M.P., was re-elected President; Sir John Lubbock, Bart., was re-elected Treasurer; and H. T. Stainton, Esq., was re-elected Secretary, for the year ensuing.

It was announced that the first volume for the year 1865 is now in the hands of the members. The "British Hemiptera Heteroptera," by J. W. Douglas and John Scott, forms a somewhat bulky octavo of 627 pages, illustrated with twenty-one plates, most carefully engraved by E. W. Robinson. This volume is the most important addition to Entomological Literature which has been furnished by this country for very many years, and the value of the work is all the greater that it treats of an order of insects which has hitherto been so much neglected. The second volume for the year 1865 will be the concluding volume of Dr. Bowerbank's "Monograph of the British Spongiadae." But for Dr. Bowerbank's unfortunate illness, this volume would have been ready ere now; the manuscript is in an extremely forward state, and Dr. Bowerbank's health being now restored, the Council are sanguine that they may yet be able to issue the volume before the close of the year.

Three volumes will be issued for the year 1866: 1. The first volume of the works of the late Robert Brown, edited by J. J. Bennett, Esq., F.R.S. 2. "Recent Memoirs on the Cetacea," translated from the Danish and Swedish; edited by W. H. Flower, Esq., F.R.S. 3. Dr. Nitzsch on "Pterylography," translated from the German.

## MEETING NEXT WEEK.

FRIDAY, SEPTEMBER 22.

THE QUEKETT MICROSCOPICAL CLUB.

## ART.

### THE SOUTH KENSINGTON MUSEUM.

To the Editor of THE READER.

Sir,—I laughed heartily at your Art critic's comical but erroneous suggestion as to the origin of the design for the figure of Albert Durer at South Kensington, which joke—although it will not hurt the reputation of the famous painter from whom the design is derived—I should be glad if you will correct. The head is enlarged from Rotenhamer's celebrated engraving, and the pose of the figure and accessories from a contemporary engraving after Albrecht's own painting and design.

As you were pleased some months ago to characterize it as a "fine figure," and your present critic accredits it as "carefully painted," there is some probability that it has been fairly rendered from authentic sources. These are facts which a critic might know; but there are others which impede the spontaneous development of mural decoration, which the theoretical critic cannot be so likely to be acquainted with—viz., that mural painting, to be effective, requires a different treatment to that of cabinet pictures, which is only to be acquired by experience, as is proved by the first essays and failures of the great masters, and the repeated experiments, previous to success, of Dyce, Herbert, and others in the Palace at Westminster. A school of mural painters is not likely, therefore, to be rapidly developed in a country which invites its young painters to Westminster Hall competitions, and then leaves them for twenty years without opportunities for practising plastic art. Gold grounds, too, increase the difficulty of pre-seeing the effects of mural painting, as their powerful reflecting quality merge in one differences of light and shade sufficient for distinctness under ordinary circumstances. The figures at South Kensington are too small for their position. They ought to have been two feet taller. In large halls a figure of the natural size is ineffective at such a height; and the costumes of Hogarth and Wren are manifestly inconsistent with this kind (if I may so term it) of supernatural background.

I think that painters have to be thankful for this opportunity for gaining experience in decorative art; and if the works remain for supervision some time longer before they be indelibly fixed in mosaic, will, I hope, increase the taste for mural decoration.—I am, Sir, your obedient servant,  
WM. CAVE THOMAS.

49, Torrington Square, Sept. 11, 1865.

## MUSIC.

### THE FESTIVAL OF THE THREE CHOIRS

Gloucester, Sept. 9.

BEFORE this letter can be in type your musical readers will have learnt from other quarters that the Gloucester festival of 1865 has been a success, in spite of all the forebodings which clouded round its opening.

Malicious people say that it has been the opposition which has secured the triumph; that the vehemence of the extreme clerical party has helped the musical cause, by stimulating the zeal of its friends. But this, we hope, is an unnecessarily hard interpretation of a pleasant fact. Music and rational enjoyment have good and liberal friends among the clerics of the three shires. Canon Kennaway's opening sermon was a spirited apology for the presence of music in the Church; even the fugitive Bishop has left behind him a donation to the charity; and the absent Dean has in a way "used hospitality" by proxy, by allowing a noble relative to entertain in his deanery. The fact is, that the institution of these festivals is too good a thing to let drop in these days of increased popular understanding of music. They appeal to a wider public, socially as well as geographically, than they did. True that they are not, as once, the only means by which the gentry of the shires can hear good music; but then for every one who stays away because he can hear the same thing in London or elsewhere, there are many who are tempted to go just because they know that if they can enjoy an oratorio in Exeter Hall, they will enjoy it all the more in a cathedral. So, on the whole, nineteenth century changes have helped the festivals. As to the strictly artistic value of such meetings, I think it is unfair to apply a severe



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standard of technical excellence. The good they do to music is indirect, but real. Like the migratory scientific and other associations, they stir up the enthusiasm of large districts, they make hundreds of people who would otherwise never hear of Handel and Mendelssohn eager to find out what it is which drives their musical friends, as it seems to them, crazy. The gathering together of an orchestra and chorus is of itself an event, and one to which these towns would be otherwise entire strangers. Though music is about the cheapest of all arts, still in its fullest and richest form it is a costly luxury, such as can be habitually enjoyed only in the great centres of population and money making. These festivals spread it abroad among quieter and poorer places. Seeing all this, and seeing, too, the necessary limitations to which the whole enterprise is subject, it is unfair to criticize a shirehall concert as one would a Philharmonic or a cathedral oratorio, as a performance by a highly-organized choral society. In many respects the country performances cannot help being inferior, though there are points in which their charm is unsurpassable. And I am not sure that such criticism as I am objecting to does not do actual harm, by encouraging the notion that certain forms of art must be had in their highest perfection, or not at all. A pernicious doctrine, surely, which would practically destroy all art; as it is only the old story of not going into the water till you can swim. The performance of "Elijah," which we had here on Thursday, was, I will allow, more full of failures and confusion than any to which I ever listened, but I should be sorry to say that even to hear "Elijah" so done was worse than not to hear it at all. The blunders, no doubt, disgusted all instructed listeners, and even the most ignorant of the audience must have felt that something was wrong when "Lift thine eyes" was first started as a trio in two keys, and afterwards subsided into a duett (the middle part being inaudible), or when the conductor occasionally threw band and choir into confusion, changing his mind in the middle of a piece as to the speed at which it should be taken. But, *en revanche*, there was a vast throng of people enjoying the grand musical poem under conditions which made the performance far more delightful than many a more correct rendering in a concert-room. For myself, the mere delight of getting rid of the noise usually made by the audience (admitting this to be, in general, a necessary evil) would be cheaply purchased by an occasional deficiency in some secondary point. The thing to insist on is, as it seems to me, not that the performances shall be proof against all criticism, but that they shall be as good as they can be made subject to the limitations necessarily incident to the whole undertaking. Now, frankly, this standard—this moderate standard—has by no means been reached yet. These festivals might be made much better, musically speaking. They are, as it is, delightful meetings; they are really what they profess to be—festivals; but they might continue to be this, and yet be very much improved. The thing mainly in fault, as the incidents of the present meeting abundantly testifies, is the system of administration. Almost all the mistakes made during the week are to be traced to this one source—the musical management in the wrong hands. True musician as Dr. Wesley is, he is not fit, nor, as a rule, can the organist of a country cathedral be fit, to discharge the very peculiar duties of manager and conductor of a series of musical performances. All who know anything of the matter are agreed upon this point, so I need not enlarge upon it here. There is no one, I may add, of whom one may say it more freely than of Dr. Wesley, for he has a position in the world of music independently of the accidental privilege of having to handle the conductor's stick once every three years. He could well afford, as every man in like case could not, to set the good example of voluntarily remedying the evil.

Taken apart from this matter, the performances of the week have offered few points for criticism. To note the various defects would be only to reiterate the one complaint.

By way of illustration, I may quote the miscellaneous performance of the second morning. When was ever a more purposeless mutilation than that perpetrated on the "Lobgesang"? Fancy cutting in half the "Sinfonia-cantata," first giving the "Sinfonia," then a scrap of the "Cantata," and then passing on to an air from one of Handel's Italian operas. "He layeth the beams," as we have it in the English version, is a fine song, but what business has it in such company? A little way on in the programme there come the two great airs from Rossini's "Stabat," and then, immediately after the impassioned burst of the

"Inflamatus," we have the soft and elegant pastoral from the "Creation," "With verdure clad," a juxtaposition as unfair to Haydn as it was to Mdle. Titiens. Next to this came M. Gounod's popular sacred song, "Nazareth," a morsel which, though it had an amazing effect from the lips of Mr. Santley, is more fitted for the Sunday evening fireside than the nave of a cathedral; then a motett, by the conductor's father, "In Exitu Israel," a noble piece of music certainly, even when sung, as it was, in a general scramble; then another detached song, by Handel, "Holy, holy;" and lastly, as a finish to the first part, a cathedral anthem, by the conductor, "Ascribe unto the Lord," which not even the unparalleled quartett of singers employed upon its "verse" portion could rescue from the reproach of dulness. Here was, indeed, a strange medley! One would suppose it was constructed expressly to give point to the objection of the "serious" party, as to turning the cathedral into a concert-room. As a natural consequence, the interest of the morning did not begin till the second part, which, happily, included the "Requiem," of Mozart. But the rest of this part, which was miscellaneous, showed the same perversity of arrangement. One of Handel's most stupendous choruses, "Let their celestial concerts," was followed by Spohr's quiet and innocent little duett, "Children pray this love to cherish," as if with the express purpose of making the hearer feel the weakness of the master for whom Dr. Wesley has the deepest veneration. No musician habituated to conducting bands or drawing up programmes could have constructed such a strange scheme for a sacred festival performance; and nobody, I may add, moderately familiar with the relative capacities of public singers would have "cast" the respective works in the strange fashion adopted by Dr. Wesley. One would suppose, from looking at the programme, that the world was coming to Gloucester chiefly to hear Madame Rudersdorff. The mode in which the soprano music, not falling to Mdle. Titiens, was distributed between the German lady and Miss Pyne, has been the standing problem of the week. I can suggest no solution of it, for it cannot be believed that Dr. Wesley does not know the difference between a useful *comprimaria* and a great singer.

So much as to the most obvious moral to be drawn from this year's festival. Let us hope that the unanimity with which it has been recognized on all hands may help in bringing about the necessary revolution. When that is achieved the festival will become a really national institution. I will add a word or two as to the achievements of the chief performers. One remarkable feature was Madame Goddard's pianoforte playing. Though I was not present when she played the G minor concerto of Mendelssohn—one cannot hear everything in a festival week—I can testify to the sensation which it made. Among the singers, Mdle. Titiens and Mr. Santley, of course, bore away the palm. It would be a monotony of eulogy to recount in detail the triumphs of the English baritone. His singing in "Elijah" and "St. Paul" made an indescribable impression; in "The Walpurges Night" it was the saving of a very poor performance. Mdle. Titiens, though she once or twice sang as if fighting against fatigue (in the sanctus of "Elijah," for instance), made the accustomed effect by her superb voice and grand delivery. Miss Pyne, as I have said, was inexplicably deprived of her fair share of opportunities, but made the most of what were allowed her. Miss Elton and Miss E. Wilkinson were, as may be imagined, very inefficient substitutes for Madame Dolby, but both acquitted themselves reasonably well. Mr. Cummings, who was really the substitute for Mr. Reeves, though Herr Gunz was put forward as such, sang throughout excellently. The German tenor, as I said last week, failed dismally, and Mr. Thomas did his share of the bass music with his habitual steadiness. The conductor himself made one appearance as a performer, by playing on his own instrument, and playing very finely, as all judges of organ-playing present seemed to agree, one of Bach's forty-eight fugues.

Shortly, the festival of 1865 has had its deficiencies and its successes, but it has proved that the old musical institution of which the three counties have so much reason to be proud was never in a state of more vigorous life than it is now.

## MUSICAL NOTES.

A body of about 2,000 excursionists from Calais visited the Crystal Palace on Tuesday last. Two of the London, Chatham, and Dover Railway Company's boats brought them to our shores, and two special trains at 10.30 and 11 o'clock con-

veyed them to the Palace. The excursion was accompanied by the band of the Sapeurs Pompiers of St. Pierre. After inspecting the various courts, &c., the excursionists assembled in the centre transept, when the band of the company and the French band performed. Their Royal Highnesses the Prince and Princess of Wales, the Prince and Princess Louis of Hesse, and the Princess Hilda of Anhalt-Dessau, attended by a numerous suite, visited the Palace at mid-day. From the larger proportion of visitors being foreigners, their Royal Highnesses passed through the several courts in comparative privacy, after which they partook of luncheon in the new dining-room overlooking the terrace, from the windows of which they witnessed the great fountains. When the St. Pierre band heard of the presence of the English Royal party, they expressed a desire to serenade them under the windows of the dining-room, and played there for half-an-hour, ending with "God Save the Queen," which was splendidly performed. They afterwards gave "Vive la Reine," with regular British cheers. The Prince was much pleased with their demonstrations of amity, and deputed Mr. Bowly to express his thanks to the members of the band. The royal party left as they had come, by a special train on the high level line to Victoria-station, at about half-past four o'clock. The band was entertained in the afternoon by the Crystal Palace Company at a dinner. The health of the Queen and the Royal Family were drunk with real enthusiasm, our French neighbours seeming to take great delight in our English hip, hip, hurrah! At our toast, however, they supplemented this with a perfect novelty to the stay-at-home Englishmen. We mean a sort of hand-clapping, done with perfect regularity, and ending like a volley. There was a strange and unintended musical performance at the gathering of the foreign visitors for departure by the trains. First, a drum gave a few beats; then other instruments of walking stragglers sounded a few notes evidently at random. Presently, as the members of the band assembled—all walking rapidly towards the station—snatches of various tunes were to be heard from all sorts of instruments. But the curious part of the clever performance was, that it finally blended into the "Marseillaise." It was really a bright and happy day for all the French and English who were present; and the more of such days we have, the better for both nations. At six o'clock the French visitors left the Palace, expecting to arrive at Calais between ten and eleven o'clock the same night. If he succeeds in performing this, it will be the greatest feat of Captain Daniel, the manager of the London, Chatham, and Dover excursions. On Wednesday there was the gathering of the 4,500 certificated members of the Tonic Sol-fa on the Handel Orchestra, conducted by Mr. J. Sarll and Mr. J. Proudman.

## POPULAR ENTERTAINMENTS.

It has been a theory with various philosophizing essayists that a people are to be judged by their architecture, which has fancifully been called the costume of a nation; others have judged of everything by dress; and there are not a few who would decide on the morals of a nation by its public entertainments. These are but fantastic and unreliable modes of judging, although they may each of them manifest some of the dispositions of peculiar classes of society. In so populous a community as ours, there are extreme tastes and very opposite opinions as regards pleasure and enjoyment. Even in the same classes very different tastes prevail; and we may see artisans and grisettes at the high-class drama, and men of a very superior grade at the music-halls. There is also a very large portion of the population which, either from taste, religious feelings, or situation, scarcely ever enter any places of public amusement. In the metropolis, as elsewhere, a feeling that theatres are contrary to the Scriptures obtains with a very large class, who on no account would set foot in any place licensed as such; yet while they refuse to go to a concert at Covent Garden Opera House, they do not scruple to frequent St. James's Hall. Many will go to musical entertainments or even a music-hall, who could not be induced to step inside Her Majesty's Theatre. But besides this large class, who from conscientious motives abstain from our public entertainments, there are many who have no taste for theatrical performances, and whose principal idea of enjoyment consists in tasting the creature comforts, of either eating or drinking, generally both, combined with the extra luxury of tobacco. This class, which is almost entirely formed of those accustomed to vigorous toil, will consent in summer to have the addition of a cockney



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garden and a little open air, although that is not always of the freshest, owing to the tea-gardens being generally surrounded by black ditches, and accommodated with ricketty seats in damp arbours. In the winter this class is now gradually being inured to the innovation of music and dancing; although many still prefer the smoky atmosphere of a public-house parlour. Thus we find, even amongst those accustomed to the same daily toil, a marked difference of taste. The younger portion are, perhaps, pairing off to the music-halls; and as both sexes are admitted to their entertainments, they are gradually giving a different tone to the manners of the multitude. Indeed, a great change, from a variety of causes, is coming over the spirit and habits of the people, which is interpreted by the governing class in a very different manner. Some see nothing but the corruption of the multitude, and others only its purification, in this general relaxation of the extreme severity of toil, and this tendency to more mentally active pleasures. On the whole, we are inclined to take the favourable view. It is, indeed, to be feared that the Lovelaces of low life may have a few additional opportunities of spreading their fascinating snares, and deluding some of the innumerable work and factory-girls that frequent these gilded saloons. It may also be that the incipient George Barnwells, deluded by the false glories of such magnificent Halls as the Oxford or the Alhambra, may be so bewildered as to lose their sense of *meum and tuum*. There are certainly instances at the police-offices which prove these facts; yet they are comparatively few, compared to the vast numbers that frequent music-halls; and we fear such ill-regulated and ill-brought up personages would pursue their vices without any extraordinary temptations. The very commonness and universality of luxuries render their sin less injurious. In proportion as people are accustomed to money and comforts do they learn how to use them both with moderation.

With respect to music-halls, all classes and both sexes, with the exception of the higher grade of women, use them; and they are as variously classed as concerns frequenters as the theatres, which are greatly affected by situation. According to a late calculation, there are in London thirty-two music-halls, at which are employed, as singers, musicians, dancers, and helpers of all kinds, fifteen hundred people; and they can accommodate nearly forty-two thousand visitors, although they are not, on the average, above half full. It is said that, including the great provincial towns, there are upwards of a hundred and fifty music-halls in England. We, however, can only speak from personal knowledge of the metropolitan ones. They are of very recent growth, the first music-hall proper (or improper) being built in 1851; and the Canterbury Hall has, we believe, the honour (or the dishonour) of starting a new and mixed form of popular entertainment. Evans's, indeed, was far earlier, but it never admitted female visitors, or employed female performers. That Apollo and the Muses should be introduced to beer and tobacco—and even to mutton-chops and kidney potatoes—seems an anomaly; yet Ovid tells us in his classic lines that the andanar of the ancient theatres were not unmindful of the creature comforts; and his hero is told to be very assiduous in providing these caters for his adorable mistress. It is not pleasant to associate the Alcestis or the Medea with fried sausages and assafoetida sauce, yet we fear that the researches of that great scholar, whom Le Sage mentions as finding out that little boys cried when they were whipped at Athens, might discover that such indulgences took place in an Athenian audience, and during the performance of the immortal Greek plays. However this may be, Music has ushered in Dancing, and the two seemed inclined to introduce Comedy and even Tragedy. However shocking this may be, it is probably a natural process, and we can only hope that ultimately the intellectual may completely triumph over the sensual. The question is Beer and some art, or Beer and no art. But it is no province of ours at the present moment to settle this question, which indeed is sure to settle itself, and will probably do so by saying "Less Beer and more art." We, however, intend only, in our brief view of popular entertainments, to report what we have seen, and what are the facts. The West-End music-halls are the looest as to morals and the genteelst as to company. The East-End and Suburb music-halls are most frequented by the artizan class, who introduce their wives, and are frequented by the family. These latter really show a new phase of manners, as introducing women to participate in their evening enjoy-

ments. At Canterbury Hall, the Metropolitan in Edgware Road, at Wilton's, Wellclose Square, the genuine artizan and his family will be found, or the new and populous class of girl-workers, and their affianced and accepted lovers. At the Oxford, Weston's, and the London Pavilion, will be found the faster portion of the grade above the artizan and small trader, the young assistants and clerks of the wholesale dealers, with a sprinkling of the fastest portion of a still higher grade; but all these are also intermixed with perfectly respectable men and women, who come solely to enjoy the entertainment. Of course, the vicious will resort to all available places to ply their vile trade; and although there are no scenes such as we recollect in the two grand (and then only) theatres for the performance of the legitimate drama, when the staircases and lobbies were beset and thronged with the most openly abandoned women, yet there is a sufficient demonstration at some of the music-halls that they are used as a resort by habitually misconducted women. Perhaps this is unavoidable, while there is no open violation of public decorum; but it is to be regretted, as it is desirable to afford to the wives and families of the less rich grades of society a cheap and amusing resort uncontaminated by obvious vice. We are very much inclined to think if any proprietor were to open one of these places of entertainment, with a strict determination only to admit respectable women, it would answer his purpose as a pecuniary speculation. It is perfectly possible for any intelligent person to keep his hall perfectly select, if he will only exercise his own discretion as to whom he admits. Indeed, the arrangement would soon work itself, for disreputable women have no motive for wishing to get into purely respectable society, when it is not formed solely of wealthy men.

As to the performances at these places of public entertainment, it is noticeable that the same kind of performance pleases all classes. The country or the town gentleman is as anxious to hear Vance or Mackney as the coal-whipper at Wapping. "Slap bang!" is as charming at the West-End as at the East. Plenty of money and fine clothes give no assurance of mental refinement; and it may be doubted if the Faust music is not more eagerly listened to by the quiet artizan and his young wife, than by the sporting gentleman and the very fast-looking lady in the pink bonnet. The managers of these establishments have, on the whole, been active and intelligent in catering for their audiences. They have provided good concert music; and in some instances, as at the Oxford and the Canterbury, a full and efficient company of instrumentalists and singers, who have given some of the best modern music, not even excepting the high productions of Beethoven. At Evans's, at one time, they had a remarkable youthful choir, with some unrivalled voices, that sang the music of Purcell and other high masters. Mingled with this has been, and undoubtedly is, much buffoonery and some vulgarity. Comic singing has never been noted for its refinement, and that of the present day is not so coarse as that of the past generation. The abominations of the Jim Crow melodists have been much ameliorated, and Vance is not so gross as Grimaldi. The comic songs of a nation are always a re-echo of its manners; and every popular comic song has some sly hit at the ways and conduct of the beaux and belles of the lower grade, and certainly takes life as it at present exists and is known in their own circle. It expresses some foolish confidingness of Mary Jane, or some crafty deception on the part of a flash cracksmen. It betrays the innate love of flirting in the sex, as in the case of the damsel who goes off with the organ-grinder, or is fascinated by one of a German band; or it sings the praises of the dark young girl who works at the sewing-machine. Absolute buffoonery seems sometimes to be in the ascendant, and the long popularity of "The Cure" and "The Nervous Man" prove on how infinitely small an idea many minds will feed. It has, however, the rare merit of not being imitative.

Altogether, perhaps, music-halls and their entertainments do not give all, or exactly what a philanthropic philosopher would desiderate for a free, intellectual, and progressing people. But the question to consider is, are they on a par with other portions of our manners and proceedings. Looking at our system of education; our social arrangements as regards our general mode of living; on the way the masses are housed; the state of the domestic arts, and of the fine arts as concern every-day life, they really seem to fit in harmoniously. The great

populace can only be taught manners by associating in public; and at least the music halls conduce to that. Nor are their morals any worse than other places of public resort; and compared with the old fairs they are refinement itself. Compare Evans's, Canterbury Hall, and the Oxford, or Weston's, the Metropolitan, High-bury Barn, or the Lord Raglan, with Bow, Camberwell or Bartlemy fairs, or even with the more genteel Brook Green, and certainly, as regards the conduct of the visitors or the entertainment provided, there can be no comparison; but to the advantage of the music-halls. Nor must it be forgotten that the people have always had some such entertainments, since the Church left off providing them in the shape of Miracle plays and Moralities. The old free and easies, and the still older cock and hen clubs, were the precursors of music-halls; and all who can at all remember them will rejoice that they have been superseded. Place, the founder of *The Westminster Review*, delighted to contrast the places of amusement in his boyhood and those of his old age. He declared there were at least a dozen places of resort between Whitechapel Church and Charing Cross, the two extremes of his dwelling, where in large rooms youths of both sexes met and drank and revelled together. Two girls, not of the best repute, were set in chairs on the table, and directed the proceedings. Rioting of the most boisterous kind resulted, and generally a battle with the watch, too insufficient to capture, and too corrupt to retain. So we need not despair, although the music-halls seem to some to encourage profligacy, and to lead to dissipation and evil. There are, however, no tangible symptoms of universal corruption being engendered by them. Machinery induces a more regular and constant habit of working, and the vast manufacturing population of London, female and male, cannot be deteriorated as regards work. Indeed it may be questioned if St. Monday is so rigidly kept, or if work is not more regularly and constantly performed, than it was in remoter times.

The amusements of the people have never been considered beneath the care of its Government. The Roman tyrants maintained their tyranny by providing the favourite amusements of the populace. In modern times so much has not been done for them; yet still despotic Governments think it worth while to provide and to continue them. In England this kind of surveillance has only been shown in the way of repression. It may become a matter of consideration whether some more active and enlightened assistance might not be given to them. Supply in matters of taste must precede demand. This, however, requires very delicate manipulation. We have tardily admitted the necessities of parks; perhaps we shall come to consider casinos and bands of music therein a necessary corollary. No other country possesses such a public pleasure ground and institution as the Crystal Palace, and this is the fruit of private enterprise. It is national, though not governmental. Yet it should never be allowed to perish, or to become a mere commercial speculation and tea-garden. Its high artistic and instructive objects have failed, and it has succeeded only as a monstrous concert-room and large hotel; but its artistic and botanic objects, as well as its musical claims, make it the resort of the high as well as the lowly. Compelled to make pecuniary calculations, it has deteriorated from its simpler and more elegant aim, and it may be questioned if Government aid would not have been as well disposed in keeping up its artistic object as in making the South Kensington Institution purely scientific and artistic.

The only novelty of the week has been the occupation of the Polygraphic Hall by a family named Gourlay; the paterfamilias enacting several Scotch characters; the mother, Mrs. Gourlay (formerly Miss Susan Goddard) singing ballads; and the little boy, nine years old, uniting the humorous qualities of the father with the singing capacities of the mother. The entertainment consists of the personation of a young Scotch couple on their wedding tour, during which they meet with a humorous landlord, two female gossips, "a daft creetur," a vagabond packman, a Newhaven fishwoman, and an Auld Wife. The personation by Mr. Gourlay is good, and the little boy is pleasing and clever. The Scotch dialect, and the novelty of the characters remove this exhibition from the extreme insipidity generally perceivable in such entertainments.

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